

THE ALABAMA MEDICAL JOURNAL

VOL. 19. FEBRUARY, 1907. No. 3

Original Communications.

Symposium on Gastric Ulcer.

Gastric Ulcer: Pathology.*

By Norborne Page Cocke, M. D.

Birmingham, Ala.

At all times there should be a determined effort to base diagnosis upon real facts, and this demands that we have some knowledge, at least, as to the etiology and the underlying morbidity of disease processes; otherwise our diagnosis frequently resolves itself into a mere matter of conjecture, as a consequence of which we are often misled, and our aims at treatment under these conditions are of little or no avail.

With these facts in view, this paper has been prepared, which, at best, is but a brief and incomplete review of our present knowledge of the etiology and pathology of chronic peptic ulcer of the stomach.

Chronic peptic ulcer of the stomach is of fairly frequent occurrence, as is shown by the extensive records collected by Welch, who found either an ulcer or the resulting cicatrix in 5 per cent. of persons dying from all causes; however, judging from the accumulated evidence of many observers its etiology is still very obscure.

Many theories have been advanced as to its causation, but the facts

*Read before the Jefferson County Medical Society, Jan. 28, 1907.

are few and the conclusions arrived at are conflicting and not at all convincing.

It is probable that no one factor taken alone is capable of producing the lesion.

Sex, age heredity, occupation, trauma and associated diseases, such as chlorosis and other anaemias have been ascribed as contributing causes.

Of 1699 cases collected from hospital statistics and examined post mortem Welch found that 60 per cent. occurred in females and 40 per cent. in males, though Mayo says "that it has been a general observation that the large irregular indurated ulcer is more frequently met with in adult males."

The most frequent age of its occurrence in females is between 15 and 25 years; in males more frequently between 40 and 50 years. It is sometimes met with in elderly persons and there are quite a few cases in the literature of its occurrence in children from birth to 13 years of age. It is not by any means certain that occupation exerts any influence, though servant girls, shoemakers and tailors seem specially prone to it.

It seems pretty well agreed that hyperchloridia plays a most important role, for as Mayo says, "that at some time in the history of gastric ulcer, and in the majority of cases, at all times, there is a relative increase in the secretion of hydrochloric acid, and whether cause or effect, this excess is a most important etiological factor, as is shown by the frequency of typical peptic ulcer in the first portion of the duodenum above the common duct with its alkaline fluids, and by the occasional appearance of secondary ulcer in the jejunum which has resulted after the performance of gastro enterostomy to divert the food current from the ulcerated area in the stomach."

Just why this excess of acid should attack certain localized areas in the stomach is not clearly understood unless we admit of some pre-existing local or constitutional condition which inhibits the functions of the natural resisting forces of the stomach, whatever they may be; for it is well known that there exists in the stomach other conditions

which are accompanied by an excess of acid which do not result in ulcer.

The view of Virchow that an *enfarct* produced by plugging of the nutrient artery of the part by embolus or thrombus and is subsequently attacked by the gastric juice resulting in ulcer, at one time gained general acceptance, but a more careful study of the blood supply of the stomach demonstrates the fact that there are no end arteries in the stomach; and then, too, experimental attempts at artificial production of ulcer of the stomach according to this theory have shown that lesions so produced heal with great rapidity unless the animals have been rendered very anaemic by abstraction of blood.

Most observers agree that anaemia, particularly chlorosis, is an important causative factor, but fail to enlighten us as to just how its influence is exerted. Other equally eminent writers contend that the anaemia is the result of the ulcer and plays no part in the etiology.

Billings says, that trauma, acting alone is probably not a cause, for as a general rule, lesions so produced heal rapidly, however, in not a few cases there is a history of traumatism, either from external violence in the region of the stomach, or else from contact with rough particles of food or the mucous membrane, especially in the pyloric or "grinding" portion of the stomach, and as 80 per cent. of all ulcers, according to Mayo, are situated in this locality it would seem that trauma would at least be given some place in the role of causative factors.

The condition has been known to have followed large superficial burns, which shows, as Osler states, how the "gastro-intestinal mucous membrane is implicated in the toxic effects."

The theory that central or pneumogastric nerve disease is a causative factor has been advanced and experiments to substantiate this theory have been carried out, but the results are not conclusive, however, Porlow observed loss of motor power of the stomach with subsequent dilatation after section of the bag; this taken together with stagnation of the gastric contents might at least be taken as a predisposing element.

Bacterial necrosis of the mucosa and spasm of the muscular coat of the stomach in limited areas have also been ascribed as causes.

Recently much experimental work has been done on the artificial production of ulcer of the stomach. Dr. Fenton B. Turck, of Chicago, gives the results of his exhaustive experiments along this line in a most interesting and instructive article published in *Journal A. M. A.*, Vol. XLVI., June 9, 1906. He has succeeded in producing typical peptic ulcer in the stomachs of dogs, by feeding them over long periods of time upon bouillon cultures of *B. coli communis* which were taken from the feces of ulcer cases.

He draws the conclusion from his experiments, "that the factors concerned in the production and persistence of ulcer of the stomach and duodenum appear to indicate a dual condition"—he says, "that some toxic condition seems to be produced which overcomes natural resistance, resulting in cytolysis, and possibly some chemical substances formed within the alimentary tract, which, when absorbed, may neutralize the protective bodies in the blood and tissues resulting in auto cytolysis."

In conclusion he states "that we have now for the first time a firm basis by which to solve the fever or underlying etiology of ulcer."

Rosenau, U. S. M. H. S., has found ulcer in the stomachs of guinea pigs following the subcutaneous inoculation with diphtheria toxin when given in sufficiently large doses to produce death; he also produced the same condition by inoculation with pure cultures of *B. diphtheriae*, which had previously been thoroughly washed in order to remove the toxins.

As a general thing only one ulcer is present though they may be multiple and number from 5 to 20. (Osler.)

The acute ulcer is small and has a punched out appearance, its edges are clearly defined and not thickened, the floor which is formed by the submucosa is smooth, the muscular and peritoneum coats are seldom involved. It is impossible to recognize it at operation from the outer surface of the stomach.

The chronic ulcer is found to be of varying sizes. Peabody reported one which measured 19x10 c. m. Its edges are irregular and indurated, it usually involves all of the coats of the stomach and can be recognized

at operation from the peritoneal surface of the stomach; these ulcers usually show some evidence of cicatrization.

As before stated, about 80 per cent. of all ulcers are found in the pyloric portion of the stomach, being situated along the lesser curvature and on the posterior wall.

The resulting scars of ulcers, particularly if large, and perigastric adhesions often produce considerable change in the size and shape of the stomach.

Of rather frequent occurrence is the so-called "hour-glass" stomach which results from the scar following "saddle" ulcer.

Pyloric stenosis with varying degrees of dilatation is another condition that quite frequently follows contraction of resulting scar tissue.

Gastric Ulcer: Symptomatology and Diagnosis.*

By Cabot Lull, M. D.

Birmingham, Ala.

Gastric ulcers produce symptoms varying according to their number, size, location and chronicity.

Small single or multiple abrasions of the stomach mucous membrane, when acute, generally produce no characteristic symptoms, unless by erosion of vessels, visible hemorrhage occurs, or they perforate into the peritoneal cavity. Either of these occurrences may be followed by symptoms of collapse with fatal termination. Following a perforation, a localized peritonitis being set up strong adhesions may be formed with neighboring structures or healing without perforation cicatricial pyloric stenosis arise, either of which may produce symptoms demanding investigation.

Unrecognized and unarrested they become chronic and often exhibit periods of activity with symptoms alternating with quiescent periods with practically no symptoms. Autopsy records show many gastric ulcers the true nature of which was unsuspected.

*Read before the Jefferson County Medical Society, Jan. 28, 1907.

Attempts by clinicians to localize gastric and duodenal ulcers according to relation of pain to the taking of food have so far proven unsatisfactory. Though the gradual encroachment of the surgeon on the domain of internal medicine relieves the internist of much of his therapeutics, the general practitioner has the opportunity and responsibility of diagnosis, and it is most often his fault that many cases amenable in their earlier stages to surgical treatment are allowed to become hopeless.

Careful history taking though always important can not be too strongly urged when dealing with obscure intra-abdominal diseases. The physician who rushes through the history in his haste to get immediately at the seat of trouble is apt to lose sight of some important subjective symptoms and be led into error. Approaching a case with a pre-conceived opinion one is apt to misinterpret indefinite physical signs and even give undue importance to laboratory findings.

If a patient comes to us complaining of dyspepsia—with sour stomach—of several months duration, attacks of pain either paroxysmal and agonizing after eating or burning and gnawing when the stomach is empty, we find on inquiry that he may have brought up a little blood during one of his vomiting spells, how easy it is to diagnosis gastric ulcer. In a fair percentage of cases of this kind our guess would be correct, since we possibly have present the diagnostic triad, pain, hyperacidity and hemorrhage. Could anything be more hopelessly unscientific, more chimerical than a diagnosis based upon such assumptions?

No attempt will be made to discuss all the symptoms of gastric ulcer nor the clinical differential diagnosis of this disease from other conditions with which it may be confused, as these are elaborated upon in all text-books, and are found in practice only in advanced cases, where diagnosis ought to present few difficulties.

Pain, hyperchlorhydria and hemorrhage are the three cardinal symptoms of gastric ulcer and their importance in diagnosis both positive and differential is probably in the order named.

Pain, though valuable when considered in its relation to other symp-

toms, must not be too much relied upon, as it may be simulated in several other conditions such as gastralgia in the neuroses, the gastric crisis of Dietl and tabes and cholecystitis.

The character of the pain and its relation to the taking of food, its radiation to the back and sides, and especially the localized points of tenderness on pressure are regarded as distinctive. By careful examination all the conditions mentioned above should be excluded with the possible exception of the gastric neurosis. The presence of hydrochloric acid in excess of the normal amount has long been recognized as an essential feature of gastric ulcer and regarded by some as having a causal relation.

It is possible that too much emphasis has been given this fact since repeated gastric analysis of normal stomach contents show wide variations from subacidity to hyperacidity of high degree without any symptoms.

Again hyperchlorhydria generally thought to be the cause of the symptoms in the secretory neuroses is now held by Stockton and Steele to be secondary in importance to a local hyperaesthesia, part of a general loss of nerve tone. The mucous membrane of the stomach is thus rendered less tolerant of hydrochloric acid, even subnormal amounts appearing to set up trouble.

Hemorrhage, that is visible bleeding, is said to occur in fully 50 per cent. of cases of gastric acid duodenal ulcer and it is probable that with new methods of detecting occult blood in the stomach contents and stool this number will be greatly increased.

The demonstration of occult blood in gastric contents and stools is simple and reliable. Other sources of blood along the alimentary tract, such as hemorrhoids and abrasions—from passage of stomach tube—must be excluded.

Control of diet, avoidance of raw or red meats, is necessary. In fact a diet free of meat is preferable, as it has been found that such substances even in small amounts in the stool give the reaction for blood.

The most delicate is the aloin turpentine test, which is applied as follows: 5 grams of fecal matter is liquified with distilled water, the feces is then mixed with about an equal bulk of ether, shaken well and allowed to stand 15 minutes. Pour off the supernatant liquid, mix the remainder with 1-3 its volume of glacial acetic acid and 10 c. c. of ether. Shake and allow to stand 15 minutes. The ethereal extract will rise to the top in a clear layer and is readily poured off.

The solution of aloin is made by dissolving about as much aloin as may be held on a ten cent piece in 1-2 a test tube of 70 per cent. alcohol. Take 3 to 5cc of this clear yellow aloin solution, add an equal amount of the ethereal extract plus 5 c. c. of organized turpentine, shake gently. The color reaction appears in one of several ways: (1) The whole mixture turns pink or cherry red, or (2) the aloin solution settles to the bottom becoming quite red, (3) or if the turpentine and ether solution are first mixed and then the aloin solution allowed to flow slowly down the side of the test tube a deep ring will form at the junction of the two liquids. Hydrogen-peroxide used instead of turpentine does not develop the color so well.

The guaiac test also employed is sometimes obscured by urobilin in the ethereal extract and hence is said to be less reliable. The test is simple, the end reaction is blue. The importance of this demonstration appears first in the diagnosis of ulcer as "occult blood may be detected in the stomach contents and stools of all patients who suffer from ulcer of the stomach," second in differentiating ulcer from cancer since in the former the bleeding is most often intermittent while in the latter it is apt to be continuous. Furthermore the progress of the disease (ulcer) under dietary regimen can also be gaged by this test. The constant recurrence of hemorrhage on the resumption of solid food would tend to show that the ulcer was of the chronic "surgical" type. In closing their exhaustive articles on this subject Steele and Butt give classifications of diseases showing positive and negative tests. Those diseases giving positive reaction are gastric and duodenal ulcer, cancer of the alimentary tract, benign pyloric stenosis with stagnation cirrhosis

of the liver, purpura, tubercular enteritis and typhoid fever—(infrequently).

There should be no great difficulty in excluding most of these conditions with the possible exception of cancer. Recently a bacteriological test which gives promise of great practical help in differentiating cancer has been brought out. The Gram staining of smears from the stool show the normal intestinal flora—*bacillus coli communis*—to be negative.

In cases of carcinoma of the stomach the lactic acid group—Oppler-Boas bacilli—nearly always demonstrable in the stomach contents is found to almost if not entirely displace the color group in the intestine. Their recognition after a little experience becomes easy as besides taking the stain usually intensely they differ morphologically, being thinner, more variable as to the length, non sporulating and often presenting non staining areas.

It is claimed by some investigators that the gradual development of carcinoma at the site of an old ulcer may be first detected by this test.

CONCLUSIONS.

The diagnosis of gastric ulcer is often very simple. The great importance of early diagnosis is emphasized by the necessity of the recognition of malignant disease which is amenable to surgical treatment alone, and the hope of life saving surgical intervention in cases of hemorrhage or perforation from gastric ulcer.

In obscure cases after exhausting all means at our command in efforts at diagnosis exploratory laparotomy should not be delayed.

Gastric Ulcer: Medical Treatment.

By Frank E. Nabers, M. D.

Birmingham, Ala.

The chief indication in the medical treatment of gastric ulcer is rest for the patient. To obtain rest as fully as possible the ideal treatment consists of rectal feeding and the withholding of all food from the pa-

*Read before the Jefferson County Medical Society Jan. 28th.

tient except that which is given in this manner. There exists an ill founded prejudice against this method of feeding, but if the simple and concise rules as laid down by Riegal in Nothnagels system of medicine are followed, this objection will be found in all cases to have been based upon the results obtained from older and cruder methods.

While employing rectal feeding it is quite necessary that the patient's mouth should be kept as clean and fresh as possible and one of the simplest and most satisfactory methods of obtaining this desired condition is to have the patient use chewing gum. During the time of the employment of rectal feeding, alkalies in the mouth are not needed as in non-complicated gastric ulcers no free acid is secreted, except when food is put into the stomach.

The second method of obtaining rest for the organ is by some system of feeding by the mouth, which has for its principle the retardation of free acid and a simple form of nourishment which will put the minimum amount of work upon the diseased organ. These results are best obtained by using the Lenhartz treatment or some of the various modifications of this treatment. In a recent issue of the Journal of the American Medical Association the main features of the Lenhartz treatment were concisely stated, and the reader is referred to this article for all the details—in brief consisting of raw eggs beaten up, small quantities of milk at regular intervals and some medicines which will be referred to in a moment. It should be understood that the Lenhartz or any other method of treatment which carries with it stomach feeding is but at best a compromise method, as the only ideal treatment consists of from 10 days to 2 weeks, of withholding all feeding from the patient by the stomach and using rectal alimentation, but as it is so exceedingly difficult to obtain the patient's consent for this long period of rectal feeding, and so hard to have it carried out intelligently except in hospitals, that the Lenhartz treatment is the one upon which the practitioner most often relies.

During the treatment of gastric ulcers several general propositions should be kept in mind and as stated above the first and most important is to obtain the maximum of rest. Secondly, in feeding by the

mouth, to use food easily digested and drugs which relieve the excessive acidity, and so far as is possible by drugs, to inhibit the too free formation of hydrochloric acid and to give belladonna, preferably in the form of solid extract which is probably the best single remedy we have for the treatment both of pain and the excessive secretion of acid.

Bismuth, whether in rectal feeding or stomach feeding, should be given in large doses at three to four hour intervals during the day, 60 grains being an average dose. Alkalies should be given about one hour after each mouth feeding, carbonate of calcium being my preference. Chloroform water in half tablespoonful doses as recommended by Stepp seems to allay many of the unpleasant sensations. The use of fats in the form of olive oil, cotton seed oil or cream is to be highly recommended. This class of food being the chief reliance of many physicians in cases of the kind under discussion.

During the treatment every effort should be made to relieve the secondary anememia, nearly always present in this class of cases, and probably the most satisfactory form of iron is Bland pills, the so-called organic preparations of iron while very palatable give poor results for the reason that hydrochloric acid breaks them up into acid peptone and hematin. The hematin being most entirely non-absorbable.

For the relief of the special symptoms such as persistent vomiting, severe pains and hemorrhages, rectal treatment is our sheet anchor, although the internal administration of large doses of Bismuth and Belladonna associated with local applications either hot or cold should not be neglected. The ice bag is thought to be better than the hot water bag, at any rate it tends to make the patient more comfortable.

I should like to call your attention to the danger of treating gastric ulcers in middle aged persons for any considerable length of time, as gastric ulcer is largely a disease of youth. Gastric cancer is to be suspected in every middle aged individual who comes for treatment complaining of symptoms which may be the classical ones of the ordinary gastric ulcer.

To briefly recapitulate the chief points in the medical treatment of gastric ulcer I would emphasize the necessity of rest in bed, rectal

feeding and the administration of Bismuth, Belladonna and fats by the mouth, and secondly to again suggest that all treatment by which mouth feeding is used is a compromise. Iron should be given in large doses throughout the entire time of treatment. The time ordinarily required for a case of gastric ulcer varies from 2 to 6 weeks and the treatment should always be with the patient in bed for the first one or two weeks.

Gastric Ulcer: Surgical Treatment.

By D. F. Talley, M. D.

Birmingham, Ala.

Mr. President and Gentlemen: As you all know, the surgical treatment of gastric disorders is yet in its infancy. While some operations have been done on the stomach for a number of years, it is only in the past four or five years that very much attention has been given to surgery of the stomach. Yet, I think that the surgeons have everything to encourage them from results that have been obtained. As Dr. Lull says, a very important item in beginning the treatment of any stomach disorder is an early diagnosis, and I think that we need more literature, or more information as to how to make an early diagnosis. It is very surprising to read articles on cases of severe inflammations of the stomach, excessive ulceration and also of the cancerous diseases of the stomach with comparatively few symptoms. So it is necessarily a condition which has not the symptoms you would expect, and on that account we should be more diligent in investigating all sorts of stomach disorders.

Now Dr. Lull has given the symptomatology and I think we should always be on the lookout for gastric ulcers, because we know in a majority of stomach disorders you probably have some ulceration at some time. In all of these cases where you have chronic indigestion, and especially where you have regular attacks the evidence is pretty strong-

*Stenographic report of address before Jefferson County Medical Society, Jan. 28, 1907.

ly in favor of some ulceration of the stomach. Now it is rather the custom, I suppose, in this day for the physician, the general practitioner, to wait until we have rather extreme symptoms before the case is referred to a surgeon, or before the surgeon is called to see the case. It is a great mistake to wait until you have an alarming hemorrhage, or evidence of tumor or cancer; I say it is a mistake to wait until you get all these symptoms without advising some surgical procedure, and I think in time it will be looked upon, as I stated at a meeting here before—that this kind of delay will be looked upon very much as we now look upon waiting for an abscess in appendicitis, or in waiting for appendicitis to come to a head before you operate on it.

Now, of course, I realize that in acute ulcers of the stomach, as Dr. Nabers has said, you simply have to give the stomach rest; that is one of the first principles and greatest principles in the treatment of any diseased organ; that is to give the organ rest and allow nature to heal it. I realize that a great many of the acute ulcers heal in this way—simply by giving them rest. It is evidently aided by bismuth, as Dr. Nabers has said, and also by the sweet oil treatment, which seems to protect the mucous membrane, and it relieves pain and makes the stomach more comfortable, and I believe in the oil treatment they do not withdraw food entirely; they give a little light nourishment sometimes during this treatment. However, it is a fact that when we come to organic and serious diseases and disorders of the stomach, as a rule they are surgical cases; simply because you have a mechanical condition here to deal with, and it must be remedied by mechanical means.

Now as to the hemorrhage. You have been told that in a medical way, you simply give the stomach rest by resorting to rectal feeding; keeping the stomach perfectly quiet and giving something to quiet the patient, but that does not always succeed and a great many people die from this gastric hemorrhage. You sometimes see cases in which you have a very acute and alarming hemorrhage, cases where you have an acute ulceration ingrafted on to an old condition. You will see this in people who have been having crops of ulcers for a number of years, and where they have gotten seemingly entirely well two, three or four

times, and the longer they go and every attack they have is usually worse, and they will have an attack after awhile and have excessive hemorrhage. Now as to the method of treating hemorrhage there is some difference of opinion; some surgeons believe that the hemorrhage should be stopped by suturing over the ulcer. Moynihan claims that in practically all cases of hemorrhage from the stomach, and also hemorrhage from the duodenum are relieved by gastro-enterostomy, simply because it allows the stomach to drain and contract and it takes away the irritation which is keeping up the hemorrhage. Now the Mayos claim that this will arrest practically all hemorrhages in chronic ulcers. but I think in the chronic cases you have acute ulcers to form, and in nearly all cases gastro-enterostomy will arrest the hemorrhage. I had a case last year which demonstrated this as beautifully as any case I ever saw, in a woman who had been having stomach trouble for fifteen years, and she would have an attack of ulcers that would bother her for awhile and get well and she would eat nearly anything she wanted, and after a while she would have another attack. During this attack she suffered with extreme nausea and hemorrhage and excessive vomiting. She had evidences also of obstruction and her condition appeared extreme, and a case where you could readily see something had to be done soon or the patient would die. It was a case I saw with Dr. Grace and he can probably tell you more about her symptoms than I can, because he was with her more. But in this case I did a gastro-enterostomy and the hemorrhage stopped at once. She didn't stop vomiting, but vomited bile and mucous for several days after the operation, but never vomited any more blood. It is a rare instance but what gastro-enterostomy will relieve the hemorrhage in these cases. There are other cases where it will be advisable to cut out the ulcer where it has penetrated all the parts of the stomach; there are other cases where, if you are going to try to stop the hemorrhage by suture that it is not accessible on account of being high up towards the cardiac end, unless you make a large opening in the stomach. In those cases you might tie the main vessel at a distance and relieve it. In some cases you might use a cautery to stop it. However, the treatment

of hemorrhages depends on the local conditions you find, but I believe in a majority of cases a simple gastro-enterostomy by draining the stomach and allowing it to contract will arrest the hemorrhage. Now, of course, in perforation, or in conditions where you have evidence of approaching perforation—you do not always have hemorrhage, because very frequently a perforation comes on without much evidence of stomach trouble preceding it. In those cases they will, of course, be referred to the surgeon. Of course they have evidence of rupture of some internal viscera, and I am glad to say the results are reasonably good where cases are gotten in time; say in the first six or eight or ten hours after the perforation. If they are not gotten in that time they usually have peritonitis and the results are unfavorable. A great many gastric ulcers perforate which you might call a sub-acute perforation, a perforation in which the tissues outside of the stomach have gotten ready for the perforation; where it glues over and prevents the escape of any of the stomach contents. Post-mortems show that a large number of stomach perforations have gotten well, because some of the tissues have glued up the hole and protracted the cavity in this way. The Mayos and other surgeons who have done a great deal of stomach work, do not believe that surgery ought to be resorted to in all cases. They say in neurasthenic conditions patients are usually made worse by operations; they say in atonic conditions, unless the food stays in the stomach a long time, that no operation should be performed. They claim that the field of surgery in stomach troubles is established in old ulcers, and no doubt the great majority of cases that we have to treat become chronic before they get to us. People usually go to the drugstore and get some form of pepsin, and as a rule where their stomach begins to bother them enough to seek relief at a physician's hands it is getting in a chronic condition.

Now the statistics as to the cures differ very much, and of course surgery of the stomach is so young that we cannot feel very sure yet of the results, but it seems to be very good in the hands of those who have done most of the work in this line. Now we know that with medical treatment some statistics say that about forty per cent. get well, but

we don't know how many of this forty per cent. will have relapses; and the statistics from the London hospital for five years show that there were five hundred cases treated and 19 per cent. died; 42 per cent. unimproved and 40 per cent. discharged as cured, but out of this five hundred two hundred had already been cured two or three times, that is, they had gotten well of two or three attacks of gastric ulcers. So we don't know how many of this 40 per cent. discharged as cured will have relapses. Last year at the American Medical Association Dr. Lambert, of New York, read a paper on the treatment of stomach ulcers, and he said out of something over 1200 cases 88 3-10 per cent. were discharged either cured or improved. They will all be improved if you give the stomach rest. He says out of these cases that from 44 to 37 per cent had relapses. So that really leaves about 50 per cent. that would go out as cured. But these cases that go out as cured are something like cases of appendicitis and gall stone that go out as cured and have another attack in a few months. So it is perfectly plain that in the disordered mechanics of the stomach where you have a contraction of the pyloric end; where you have a dilated stomach, a stomach that cannot drain, you have so much of the stomach below the drainage level that it cannot drain itself and the food stagnates and there is no relief for a case of this kind, except to drain it from its lowest point. Like the plumber says, you have a bag there and it has to be drained. I believe in those cases where you have this bagging or saging of the stomach, or where you have adhesions around, that your case will go on forever and never be cured without surgical measures. The general practitioners realize this; they admit it and they don't seem to be at all jealous, because this stomach work is falling into the hands of the surgeon simply because they have been treating those conditions medically for a good many centuries, and in these cases of faulty mechanics have accomplished nothing, except by giving the stomach rest.

Now as to the statistics of cures by surgery, as I say these surgical operations have not been popular, except during the past four or five years, but I notice that Dr. Mayo in his paper at the American Medical Association claimed that they were getting about 90 per cent. of cures.

I think as the surgery of the stomach is better understood and cases are gotten to the surgeon in good time that these statistics will be improved. I think at that time—last June—out of the last 150 gastro-enterostomies that he had done, the death rate was between two and three per cent., and out of the last eighty-five or ninety cases he had lost only one case. So you see that the statistics are improving all the time, and, of course, will continue to improve as the technic of stomach surgery improves.

I think this subject is one of the greatest interest and importance to both the physician and the surgeon, and I hope that a great deal more will be accomplished by surgical means in relieving these old cases of stomach trouble, and also in preventing the occurrence of gastric cancer. There are two things that should be on every one's mind where they have a chronic case of stomach trouble to deal with. You are running the risk of perforation and running the risk of allowing the patient to get into a condition of cancer, because it is clear that cancers are ingrafted on old sores. So it would be well to get the cases and operate on them before they become complicated, and we would get very much better results.

Discussion on the Symposium on Gastric Ulcer.*

Dr. J. D. S. Davis:—I am sorry I did not hear all of these papers. If the first two were like the last two I feel very much gratified at the progress of the Birmingham profession, and I think I am again able to say what I have heretofore said in almost every other State—that our city has a profession of which we all should be proud.

From the best statistics I can get on gastric ulcer, I think the medical practitioner has the better of the surgeon. It is not always an easy thing to diagnosis a gastric ulcer. Some cases die with the first hemorrhage. In one case I had the perforation took place with the first hemorrhage, and then the case died from the hemorrhage. We rarely

*Stenographic report at a meeting of the Jefferson County Medical Society held on Jan. 28, 1907.

find a case with all the classical symptoms, and often it is difficult to decide at first if it is a case in which it is better to resort surgery.

Now as to the proportion of these cases that ought to be operated upon, from the best statistics that I can gather about 75 per cent. of all cases are cured by medical treatment. Of the 25 per cent. that become chronic and are not cured by medication one-half die under medical treatment. This 25 per cent. which are not cured by rest and diet regulation is the class of cases in which surgery is indicated and necessary. A study of the statistics of this 25 per cent., when followed up, about 13 of them died sooner or later, making a death rate under medication of about 50 per cent. Now the question is, can surgery beat this. I believe from the admirable report by Dr. Tally you are convinced that it can. With the Mayos losing only about two per cent. in a large number, and others giving us a death rate of from two to five per cent., I think there is a vast percentage in favor of surgery. Death in the 50 per cent. of the 25 per cent. of cases uncured by medication, is due to hemorrhage in a little less than one-half and perforation in a little more than one-half.

Now I am convinced that the facts support me in the contention that at least 25 per cent. of all cases of gastric ulcer are not permanently amenable to medical treatment; that one-half, at least, of this number die under medical treatment from either hemorrhage or perforation (a small per cent. resulting finally in malignancy); and that if treated surgically at least 95 per cent. will be saved.

Dr. Davis exhibited the Roosevelt three blade forceps, which the Mayos have popularized for gastro-jejunostomy.

Dr. R. M. Cunningham:—Mr. President: I don't care to discuss either of the subjects that have been discussed tonight. I don't regard gastric ulcers as a very frequent disease. It is a disease that ought to be diagnosed where the symptoms are any ways prominent, and should one make an error in diagnosis and there should be unfavorable results one would expect a fatal hemorrhage or peritonitis. You could hardly conceive of a patient dying of ulceration of the stomach

without some indication. I, for the life of me, don't find one of these cases so often. It is not for the want of experience or opportunity. I have seen a few cases of gastric ulcer; I have not seen a great many. I cannot call to mind a single case of death from hemorrhage. I will say that we all concur that the object of the treatment is rest, and I believe that absolute rest of the body and rest of the stomach and a long continued course of rectal feeding will accomplish a great deal if the patient will submit to it. I believe a great many when it comes to the question of the knife or syringe will take the syringe. I would like for Dr. Tally or some one to tell us exactly how we get rest in gastric enterostomy in those cases where we have the ulcer above the gastric opening. If it is in the small curvature of the stomach or above the gastric opening, what is eaten has to pass over it. It seems that you have not got rest. I concur in the view that this is a surgical disease. If I had one in my stomach even with what the Mayos say, I would see what there was in pepsin administered for several weeks.

Dr. W. M. Jordan:—I think the society is to be congratulated on our president having selected such a timely subject. This is one of the most important subjects from a surgical standpoint and is one of the newest; is almost a product entirely of the present century. Who was the first to look at it from a surgical standpoint I am not quite sure, but I think it was Peterson. I will say in the first place ulcers may exist which do not give symptoms. They may result in the death of the individual, but all the same give no previous symptoms. Those which do give symptoms, in my opinion, are always a surgical disease. It has been said that the acute ulcer is purely a medical disease, and is to be treated and cured by medical treatment. That will not hold good in the round peptic ulcer. There are three conditions. You have hyperacidity, periodic spasms and ulcerations. Those three conditions are practically always associated. You have hyperacidity which causes ulceration and the ulceration causes spasm, which in turn prevents the stomach from draining out and leads again to ulceration and so on. In answer to Dr. Cunningham's question, if Dr. Tally will permit, I think

that will answer it. That is where the drainage does the work. It allows the acid to drain off. Gastro-enterostomy, as ordinarily spoken of, consists of three methods, which I regret very much not being able to hear discussed before this symposium. The first gastro-enterostomy that was ever done was by Wolfler in 1881; the object was to overcome pyloric obstruction, due to a cancer. He had no thought of that operation ever being utilized to cure gastric ulcer. That operation goes by his name until this day—"Wolfler's method of gastro-enterostomy." A great many years later Von Hacker said on account of the fall of the long loop would cause a spur to form. That would offer an obstruction to the valve in going into the stomach, and it gave rise to this state of vomiting, which has gone for some years by the name of vicious circle. So Von Hacher introduced the method of making the posterior gastro-enterostomy, but they made the mistake of having too long a loop, from seven to ten inches, and they would have vomiting in that, and gradually the loop has been taken in, and even the Mayos and others employed different methods of making this loop. In the present day they make practically no loop at all and the incision in the stomach is made obliquely from the left towards the right. Moynihan makes his from above to the right. Personally I prefer to follow the Mayos' idea. The object of the oblique incision is to prevent the formation of a spur or kink.

Dr. J. S. McLester:—I cannot but feel that the discussion has drifted away from the most important part of this subject—the etiology of gastric ulcer. No cure is complete which does not remove the cause; and this, surgery cannot do; it can only remove the effects of an ulcer and does not in any way prevent its recurrence. In studying the cause of ulcer we have not yet arrived at a satisfactory theory as to why the normal organ does not digest itself. It has been suggested that there exists in the cells lining the wall of the normal organ an anti-body opposed to the action of pepsin with which it unites to render harmless. It is thought by certain investigators that such an anti-body is deficient or absent in cases of ulcer, which permits autolysis of a portion of the

stomach wall. Bolton has succeeded, by injecting rabbits with scrapings from a guinea pig's stomach, in obtaining a serum from the rabbit so treated which would dissolve the stomach wall of a guinea pig.

In regard to the nervous theory mentioned by Dr. Cocke, I believe it has been definitely proven that section of the vagus or other nerves will not cause ulcer. We are, I am sorry to say, still very much at sea as to the true cause of gastric ulcer.

In regard to the treatment, I am sorry that Dr. Nabers has not stayed, for he passed over so lightly what I regard as the greatest advance in the treatment of gastric ulcer. A certain small number of gastric cases can be treated by surgery, but the greatest number by far must be treated by medical means. I refer to the Lenhart's method. I am sorry I have not yet read the last issue of the American Journal referred to by Dr. Nabers, but I have followed the discussion in regard to the Lenhart's treatment in the German journals, and I must say it is being given a great deal of consideration. Regarding the old method of rest for the stomach, an empty stomach is active and moves a good deal; you don't give it absolute rest by starving it, and I think that the starvation is the cause of so many recurrences. It is extremely difficult to cure a person already very anemic of anything by starvation. In January, 1904, was the first extensive report of cases treated by the Lenhart's method, and at the recent International Congress at Lisbon Dr. Lenhart reported a great number of cases with uniformly good results. He gives one egg and 100 cc of iced milk the first day of treatment and adds one egg and one hundred cc of milk each day up to eight days. He begins treatment even immediately after a hemorrhage. In 140 cases reported he had one death and no perforations. At the German Congress of Inner Medicine recently there was a very warm discussion of the Lenhart treatment. Senator read a paper in which he advocated that treatment with certain limitations. Boas opposed it, but the majority of the others were in favor of it with certain modifications. The Lenhart treatment appeals to me, because in it the hydrochloric acid which, being present in excess and acting as a contributory factors, is

partially neutralized by the proteids given and also because we are treating the patient as well as the disease.

Dr. Mack Rogers:—With reference to drainage of the stomach, I think it necessary when we have marked stenosis of the pylorus with its results, optosis and dilatation of this organ. My observations made on dogs a few years ago were, that experimentally you must close your pylorus if you want your gastro-enterostomy to be established. In the dogs where I did not ligate the pylorus the anastomosis failed, and in those where I did ligate it the anastomosis was established. These observations were borne out by what I saw at the Mayo clinic the past summer. One was drained too much and the other not enough. Of the former a doctor from Colorado returned to the clinic nine months after a gastro-jejunosomy for a gastric ulcer. He complained he was too well drained, he got no nourishment, everything he took went directly through him. He might take a meal of any ordinary food and in less than an hour he was compelled to go to stool and pass it with little or no digestion. So, of course, he was too well drained. Of the latter class, several returned to the clinic who had been operated on similarly several months or years previously and the anastomosis had closed up and they were back seeking relief. Mayo explains this by saying they were some of his early work before he learned to make his anastomosis large enough.

Dr. C. Wilson:—I am delighted at your work as much as the gastro-enterostomy and gastro-internal medicine men. Of course this subject is attracting attention all over the world and is attracting more attention perhaps in Birmingham than in most any other small town, and I am certainly delighted to see it, because it is a neglected field everywhere. The medical part of it has been neglected and will be neglected for a good while. While we all know that plenty of acute cases are relieved by internal medicine, and all cases ought to be treated medically before they are operated on, a great many cases will get well, and I believe Robinson and Moynihan say that none get well with operations.

I would not with my little experience now let an acute case go very long, unless there were symptoms of improvement, without doing gastro-enterostomy. The results are so good and the dangers from the operation are so small that I think any patient who is suffering very much, and who is taking the risk of bleeding, can very well afford to assume the little risk of gastro-enterostomy. I don't believe there is any danger of the patient dying ordinarily from the operation, and there is practically no shock from the operation. I don't think I have ever seen the operation done where I didn't think a patient without any strength hardly could have stood it. I have operated on some extremely weak and feeble patients and have never seen a death from it, and I would not hesitate under most circumstances or conditions in undertaking the operation. The last gastro-enterostomy operation I did was on a patient that didn't look as if he could take ether a half hour, and that was practically the only effects of the operation. The operation was accompanied by practically no shock.

There is one question that I have been paying a good deal of attention to in the last three or four years, in ulcerated bowels and dysentery, and that is feeding patients on turnip greens. Recently I have seen a man, not under my care, but a man whom I know has had a stomach ulcer, and who was reduced almost to nothing from hemorrhages and had tried the strictest diet of every kind that his doctors had prescribed for him, and after he watched an acute case of dysentery get well from eating turnip greens he decided to try it, and the man has gained probably twenty pounds and is in better condition than ever in his life, and he attributes it all to turnip greens. Recently I saw a patient that Dr. Pressley had and this patient vomited everything and was dying from exhaustion, but the only thing he could retain before he decided to have an operation was turnip greens. It undoubtedly has a good effect on the mucous membrane; whether it is in the stomach I cannot say, but undoubtedly in chronic dysentery it has a good effect.

Dr. J. M. Mason:—An article in the *Annals of Surgery* has recently attracted my attention. In the case reported, Bullitt had a patient

with almost complete occlusion of the stomach from cicatricial contraction from an extensive ulcer. No operation upon the stomach was possible, and he brought up the duodenum and did a duodenostomy. Through this opening, he has been able to feed his patient successfully for months, and his general health has been restored, though, of course, the condition of the stomach has remained.

This case, and the discussion this evening have brought to my mind the possibilities of the operation of jejunostomy. While neither gastrostomy nor jejunostomy are operations of choice, it may often happen that, in order to prevent starvation in an inoperable cancer or ulcer, particularly where the disease is in the cardiac end of the stomach, one of the operations may have to be resorted to. Gastrostomy is an operation of established value, while, from what I can gather, jejunostomy is one of much less benefit. Indeed, very recent text-books speak very unfavorably of the operation, but recent reports in the journals, and discussions of special societies give the operation more favorable consideration.

Mayo Robson reports three cases where jejunostomy was successful in materially prolonging the life of some otherwise hopeless cases. Deaver, in a paper before the Southern Surgical and Gynecological Association in December advocates the operation where gastrostomy cannot be performed, in cancer or ulcer involving the cardia, and where starvation is impending.

It is also recommended as a measure for giving the stomach complete rest in cases of severe hemorrhage.

Most operators, however, claim that hemorrhage is quickly controlled by gastro-enterostomy.

When a diagnosis of ulcer or cancer is made, we may have very definite ideas as to what we intend to do upon opening the abdomen, but are sometimes forced to modify our operations by the conditions met with after the abdomen is opened. With a freely movable stomach and an ulcer about the pilorus, gastro-enterostomy may be easily performed, but if we find a contracted and adherent stomach, such a thing may be entirely out of the question. In a case of cancer which has

been recently under my care, the cardiac end and the lower part of the oesophagus were involved, and stenosis had developed to the point that liquids could scarcely be swallowed.

The abdomen was opened with the intention of performing a gastrotomy, but the stomach was found to be so contracted and adherent that this was impossible. Jejunostomy was considered, but we decided to rely upon rectal feeding and the use of such liquid food as the patient could swallow. This conclusion was arrived at after considering that the patient's condition held out very little promise, owing to the extensive cancerous involvement. We feared the possibility of making a fistula instead of a "stoma," thereby rendering the patient's last days miserable. I believe, however, that by resorting to technique similar to that used in the Witsel operation of gastrotomy, a fistula will be avoided. Mayo Robson has also made use of a method which will prevent the formation of a discharging fistula. The loop of jejunum is drawn up, and an entero-anastomosis is made between the afferent and efferent loops at a point below that selected for the opening on the surface of the body.

I call attention to this operation because it is one which is just now being brought to our more favorable attention. It is, of course, seldom indicated, and but little is written or spoken of it. However it may be necessary to resort to the operation any time, and it should not be overlooked.

Concerning the nervous involvement so often seen in gastric disorders, I would call attention to the address on "Principles underlying the surgery of the stomach and allied viscera" by W. J. Mayo, delivered before the College of Physicians of Philadelphia.

He claims that it is quite likely that "abdominal ptosis and many forms of neurasthenia are characteristic expressions of evolutionary instability of the sympathetic nervous system, and that the one essential difference between the sympathetic and cerebrospinal system is that the sympathetic is not segmented, and is, therefore, unable to prevent general disturbances upon irritation of one of its component parts."

Dr. W. M. Jordan:—I intended to lay particular emphasis on this question of improved statistics. Of course a great deal depends on improved technic, but a great deal more is due to the fact that the cases are more carefully selected now than formerly. I want to insist on that, If we are to establish this treatment in this community we have got to select our cases very carefully. It must be done with a minimum of deaths. No case of pernicious vomiting of any kind should by any doubt be allowed to go under surgical treatment, nor should any neurasthenic case. Just a word about frequent gastric ulcer with gall stones. I don't think that has appeared in the literature much, but several cases have come under my observation. I believe Dr. Wilson has seen some and Dr. Pressley.

Dr. G. Torrance:—I remember a case in which a woman was brought in with a cancer following an old ulcer. She improved very much and was reported on a year later and was doing very well. That is the only case I know of where very much improvement came after the operation.

Dr. C. Lull:—I am very much pleased to know that the diagnosis is such a dead easy proposition. I felt sure when I got up to read my paper it was incomplete, but I am very much better satisfied now.

Dr. D. F. Talley:—I tried to dwell on Dr. Lull's part of the paper. I am sure we all enjoyed his part of it very much. One symptom, that is the symptom of hemorrhage, has been a very confusing symptom in many cases. We know for ages people have had hemorrhages from various parts of the body, and it has been attributed to some menstrual disorders in women, and I don't know as to what disorder, in men, but there are cases, and surgeons tell you who operate on these cases, there are severe hemorrhages from the stomach where no ulcerations are found, and we are told you may bleed to death without an ulceration of the stomach from an ulcer you could not discover with your eyes. Recently Mr. Wright, of London, wrote a long article on stomach hemorrhage, and he never decided what caused it, but the mere fact that

you have a severe hemorrhage from the stomach and on post-mortem, or cases of ante-mortem operations, no ulcers could be found, still they had severe hemorrhages, and in some of those cases he said microscopically you could see breaks in the mucous membrane. So there is a good deal to be learned about these cases yet.

Dr. Rogers speaking of the man that had too free drainage, brings to mind that in the past operations were made with small drainage. This patient I spoke of I operated on July 6th. I made the operation with the Murphy button and round button. It was in a case where the pyloric constriction was not extreme, and I thought probably a small opening would suffice. In three months she began to suffer with the same obstructive symptoms, and would swell up with gas and suffer a great deal and vomited all the time. I had her sent to the hospital with the expectation of performing another operation, but with rectal feeding she improved and I sent her home, and in about three weeks she had the same trouble again. Nearly all those cases suffer with constipation, and after a gastro-enterostomy the bowels become normal. In this case I re-opened and cut out the original opening I made with the Murphy button and made a larger opening about three inches long. That was the 23rd of November I did this second operation, and I saw her husband a few days ago and he says she is able to eat anything she wants and does not suffer with her stomach, and is not nauseated and feels better than she has in twenty years. So I believe the failure has been due to faulty technic and using too long a loop. When you do this you are not apt to have a vicious circle. So I believe with the improved technic that these conditions which followed the early operations will be done away with. I was interested in reading a report of this case of which Dr. Mason spoke. It was almost a case of total stenosis of the stomach. He says the stomach was almost the size of an oyster shell. The stomach was not closed, because in that case he run a stomach tube down from the mouth.

Acute Catarrhal Enteritis.*

By J. F. Alexander, M. D.

Blocton, Ala.

In the discussion of enteritis tonight, I will deal mainly with the acute catarrhal variety because of its great importance and frequent occurrence. And I shall attempt to describe the disease to you as I have seen it at the bedside and not as the text-books describe it.

Acute catarrhal enteritis means an acute inflammation of all, or any portion of the mucous membrane of the intestinal tract. The following are a few of the causes of the disease as seen in actual practice:

1. Ingestion of indigestible, or unwholesome food.
2. Gastric derangements of any kind which permits the emptying of undigested food or fermenting chyme into the intestine.
3. Over eating or drinking.
4. Impure water, or water to which a person is not accustomed.
5. Local irritants, either toxic or mechanic, as scybalae, biliary calculi, foreign bodies swallowed, or intestinal worms.
6. Variations in temperature.
7. An excess or lack of biliary secretion. One of the functions of bile is that of an antiseptic upon the intestinal contents, thus preventing pathologic fermentation; and another of its functions is stimulating peristalsis. So a scarcity of bile favors abnormal processes of fermentation that may produce enteritis, an excess of biliary secretion may produce a diarrhoea.
8. Bacteria. For example, the colon bacillus under conditions favorable to its growth and development, assume pathologic virulence, exciting irritation.
9. Autointoxication. Poisonous substances developing in the intestine and producing diarrhoea. To this group belongs enteritis following large burns of the skin.
10. Idiosyncrasy. The ingestion of certain substances easy to digest, as shell fish, buttermilk, etc., invariably being followed by this disease.

*Read before Bibb County Medical Society Jan. 2, 1907.

11. Organic substances, such as croton oil, colocynth, jalap, etc. Inorganic substances, such as tartar emetic, arsenic, lead sulphate, copper, concentrated acids and strong caustic alkalies.
12. Secondary to almost all acute infectious diseases of the bowel.
13. Malaria.

PATHOLOGY.

There are three distinct stages in catarrhal enteritis. These stages are: first, the congestive or dry; second, the exudative; and third the mucus. During the first stage the mucus membrane is swollen, red, dry and congested. There is paresis of peristalsis. This paresis is caused by swelling and congesting of the mucous membrane being so great as to exert upon the end organs of the sensory nerves of the intestines a pressure that paralyzes them. Thus no sensation of irritation can be sent out so as to cause reflexly peristaltic action. There is also fermentation of the intestinal contents, formation of ptomaines and gas, and consequent distention of the gut. During the second stage or stage of exudation, the mucous membrane pours out a great quantity of serous fluid, and the swelling of the mucous membrane subsides. As a result of this the pressure on the sensory nerve endings lessens, and the inflamed condition of the mucous membrane and also the acid contents of the intestine produce such an irritation of the nerves as to cause reflexly violent peristalsis. During the third or mucus stage the mucus glands become very active and pour out quantities of mucus.

SYMPTOMS.

The onset is usually sudden very often commencing with nausea and vomiting. The height of the fever depends on the amount of ptomain poison. Sometimes the fever is very high (103-105 F.) and the patient looks very ill. One very marked and constant symptom in this stage of the disease is most obstinate constipation, a symptom which the books do not mention. This is the result of the suspension of peristaltic action above described. The patient may die in this stage from pyrexia or ptomain poisoning. There is distention of the bowel and

tympanites. In children the disease often begins with convulsions. All of these symptoms occur during the congestive or dry stage, which lasts from 48 to 56 hours. In the exudative stage the fever subsides to 100 or 101 F., the vomiting stops, the tympanites disappear, and the constipation is succeeded by profuse watery diarrhea.

The patients have from 6 to 20 actions in 24 hours. The actions are accompanied by colicky pains and often considerable prostration. Patients may die in this stage from exhaustion, or in a few days the disease may pass into the third stage, where the actions are considerably lessened in number, become thicker and contain mucus. Sometimes in this stage the actions contain some blood and if the inflammation extends low down in the colon there may be straining and tenesmus. In this disease, as in intestinal diseases in general, children do not suffer as much real pain as adults.

DIFFERENTIAL DIAGNOSIS.

Acute catarrhal enteritis is often mistaken for acute idiopathic peritonitis. Idiopathic peritonitis is very rare while enteritis is common. The pulse in enteritis is not so fast and the prostration is not so marked.

PROGNOSIS.

Patients with acute catarrhal enteritis regularly get well if properly treated, tho there is sometimes a resulting chronic colitis.

TREATMENT.

In the first stage give morphine hyperdermically to allay the vomiting in order that medicines given by the mouth may be retained. The morphine also lessens the congestion of the mucous membrane by allaying the irritability of the vasomotor nerves, which reflexly produces the congestion.

Apply hot fomentations to the abdomen, give calomel, ten to fifteen grains, for antiseptic effect on the stomach and also its cholagogic effect upon the liver. The antiseptic action of the bile as it flows through the intestines tends to stop fermentation. Give Rochelle Salts or Ep-

som Salts every two or three hours for its hydrogogic effect, which tends to shorten the first stage of the disease by relieving the congested state of the mucous membrane and causing an outpouring of the watery elements of the blood. The fluid thus poured into the intestine carries with it any undigested fermenting material which may be in the bowel. The passage of the rectal tube often draws off the gas and prevents very obstinate paralysis of peristalsis which might result from great and long continued distention of the intestine. Very cold water injected high into the colon serves to stimulate peristaltic action. When the exudative stage commences discontinue the calomel and salts and put the patient upon one of the following mixtures:

1. R. Salol. ʒss
 Ol. Ricini, Syr., Acacia, aa ʒj
 Ol. Terehinthi ʒiss
 Mist. Creta q. s. ʒiv
 M. Sig: Tablespoonful every 2 hours.
2. R. Ol. Ricini ʒss
 Tr. Opii. Comp. ʒsss
 Mist. Creta ʒij Syr., Acacia. ʒj
 M. Sig: Tablesoonful in water every 2 hours until bowels check.

Here the oil coats the mucous membrane of the bowel and has a softening, soothing effect upon it. The opium has two effects: One is to allay the irritability of the sensory nerves of the mucous membrane and thus check the violent peristalsis which this irritability reflexly produces, and second, it has a direct antispasmodic effect upon the muscular coat of the intestine. The chalk mixture has a carminative effect upon the intestine and tends to correct the acid condition of the intestinal contents. The salol and oil of turpentine in the first prescription act as antifermentatives. During the third stage rectal enemas of warm water and attention to diet are about all that is necessary. The patient should be kept in bed and on a very strict liquid diet during the whole course of the disease.

Report of a Case of Possible Acute Peripheral Neuritis Due to the Toxic Element of Rheumatism.

By W. T. Berry, M. D.

Birmingham, Ala.

Mr. M. A. Park, age 61. White. Gives history of fine health all his life. Free from specific or venereal disease of any kind. Has been a temperate man in his habits as to drink, sexuality and all forms of dissipation. Has been proof reader for morning newspapers for many years which necessitated his working at nights, but he always slept well and a sufficient number of hours during the day. Has been a moderate eater, but has suffered from attacks of rheumatism at various intervals during the last fifteen years. He gives a history of a somewhat similar attack to this one about ten years ago, it requiring several weeks for him to entirely recover. He hails from Memphis, Tenn., which he claims is a very malarious district, as he aches and feels bad whenever he stays there for any length of time. I was called in to see Mr. Park about 4 p. m. Saturday, Jan. 19, 1907. He was taken sick the Wednesday preceding and grew gradually worse. I found him complaining of severe pains in his lower extremities, pain in his neck and back principally over the lumbar legion. Furred tongue, fever 102F°, loss of appetite, constipation, scanty urine. There was motor paralysis in his right thigh and leg—his left thigh and leg he could move just a little only with the greatest effort and causing many shooting pains. In fact the pains above mentioned were so severe as to require him to take 1-2 gr. morph. sulphate the night before in order to get any rest at all. There was hyper-esthesia of his lower limbs and his thigh and leg muscles were sensitive and painful to touch. Pupillary re-action normal, but his vision was reduced. Patient bore an anxious and haggard expression on his face. Pulse was 82 strong, regular and of good volume. My diagnosis was "Acute Peripheral Neuritis" caused possibly by the toxæmia which probably produces rheumatism. I put Mr. Park on large doses of potass, iodid., salicin, wine, Calchicum root and quinine sulphate.

His bowels were kept open with castor oil. His improvement has been steady and gradual, when he was able to return to his work in about twelve days from the day I saw him. I believe this is a form of acute peripheral neuritis which resembles very much the onset, course, clinical picture and termination of the so-called "Idiopathic" form as is described in most of the text-books. There are reported in literature many cases of acute peripheral neuritis due to the malarial toxic agent and I am convinced as our knowledge of the causes of this disease increases the so-called "Idiopathic" class will diminish. I have reported this case because of the interest it has aroused in me from the etiology I ascribe to it.

VERATRUM.

I firmly believe that if pharmacologists, instead of spending their time investigating commercial synthetics would direct their energies to more careful study of pharmacopeial remedies, the world would be greatly benefited. A splendid example of the general ignorance concerning drugs which we call "well-known" is found in the case of the veratrums. When the statement is made in standard works on pharmacology, that the active principle of *Veratrum viride* is veratrin, and that this plant is useful only as a local application, it becomes evident that there is room enough for more accurate knowledge even among those who devote their attention especially to the study of drugs.

First.—Neither veratrin nor rubijervin are present in *Veratrum viride* root in sufficient amount to be held responsible in any degree for the activity of the drug.

Second.—Protoveratrin, although an extremely poisonous substance, differs essentially in its effects from the veratrum rhizome, and, therefore, is not to be considered its active principle. Moreover, the proportions of it are too small to permit of its being considered the toxic ingredient.

Third.—Of the known proximate principles, jervin most nearly corresponds in its physiologic action to the crude drug, but is present in too small amount in proportion to its toxicity to be considered the chief active ingredient.

Fourth.—The evidence, therefore, seems to me conclusive that there is in *Veratrum viride* some active substance as yet undiscovered.—H. C. Wood, Jr., in *Journal A. M. A.*

THE HOUSE FLY AND ITS CONNECTION WITH DISEASE
DISSEMINATION,

G. K. Dickinson states that of the seven different varieties of flies found in our houses 98 per cent. is the common house fly (*Musca domestica*). They are born in manure or in decomposed matter of any kind. Their tastes are indelicate and omnivorous and they subsist on sputum, fecal juices, and the slime and dirt that stick to exposed surfaces. The writer reports the results of experiments by various investigators. He declares that the importance of flies as a factor in the dissemination of diseases depends largely upon other existing conditions. The possibility of a spread of any type of infectious disease by this insect has been conclusively proved. From experiments the relative danger is as follows: The dejecta, the proboscis, the crushed or ingested insect and the outside parts. The writer declares that scientifically speaking the number of flies in a community is in direct proportion to the carelessness of its sanitation. The greatest care should be taken to destroy as many of these insects as possible and to protect houses and their contents from those that remain.—*Medical Record*, January 26, 1907.

OBSTACLES TO USE OF DIGITALIS.

The greatest obstacle to the use of digitalis and its preparations arises from their variability, due to differences in methods of collection and preservation.

It has been shown that leaves gathered in the proper season quickly dried, cut up, dried thoroughly in a vacuum and hermetically sealed, will undergo but little change in a year. We should, therefore, demand leaves which have been thus preserved and physiologically tested on the frog's heart, with the date of the test stamped on the package, as is done with sera.

Robert tested leaves which had thus been dried and made into tablets with sugar of milk and starch, finding them effective.

This may appear as too complicated for practice, but there is no reason why such leaves should not be sold very much cheaper than the nostrums which are being so much lauded as possessing all the virtues and none of the objectionable features of digitalis.—*Robert A. Hatcher, in Journal A. M. A.*

Society Reports.

JEFFERSON COUNTY MEDICAL SOCIETY.

The Jefferson County Medical Society was called to order at its first meeting of 1907, on Jan. 14, with Pres. B. L. Wyman in the chair.

Dr. John H. Edmunson, of Birmingham, was elected a member.

Applications for election to membership were read from Drs. Perry E. Gwin, of Bessemer; Julius B. Cooper, of Avondale; I. N. Love, of Mt. Pinson; and W. H. Bell, T. T. Wheeler and W. J. Maxwell, of Birmingham.

The first regular essay of the evening was by Dr. W. G. Harrison, upon "Some Manifestations of Constitutional Syphilis in the Eye, Ear and Nose." (For article in full see January number.)

In discussion, Dr. Ledbetter thought that clear conception of the relations between family physician and specialist should be maintained as to the treatment of syphilis when such manifestations were present; as a specialist, he preferred to supervise such treatment only when the family physician desired it, or until the more acute symptoms subsided. He thought the diagnosis of specific eye lesions comparatively easy, or at least much less difficult than those of the nose and ear, where great caution should be used, and operative measures avoided unless the specific element was clearly absent.

Dr. Fox briefly outlined a case of hereditary syphilis with "snuffles" resembling closely simple adenoids, and concurs in the warning as to operative interference in patients with specific trouble.

Dr. Sibley notes other causes than those given for ulcerative lesion of the cornea. He believed that there was nothing absolutely characteristic about the appearances seen in the retina in syphilis, and that some of them particularly may be simulated by conditions found in nephritis.

Dr. T. A. Casey expresses a doubt as to the correctness of calling mercury a "specific" for syphilis, though acknowledging its superiority for the treatment of the disease.

Dr. A. G. Douglass believes all multiple suppurating lesions of the genitals, although often diagnosed as "chancroids" will eventuate in syphilis.

Dr. Wyman discussed the eye symptoms of cerebral lesions due to syphilis, especially such as aided in the diagnosis of basal gummata of the brain.

The second essay of the evening was read by Dr. A. F. Toole, the

subject being "Some remarks on the gonorrheal and post-gonorrheal prostate." (For paper in full see January number.)

In discussion speaks of the difficulty of reaching the seat of the infection, and suggests that in the future we may see fit more often to attack the more stubborn infections of prostate and seminal vesicles by open operative procedures, with drainage.

Dr. Shropshire calls attention to the difficulty of obtaining proper drainage in gonorrhea, and mentions the heroic effort of Stokes and others to obtain this through a perineal urethrotomy, supplemented possibly by curettage. He notes the great desirability of promoting resolution of the diseased prostatic tissue, and the good results he has attained in some cases by electrolysis with the liberation of iodine to permeate the prostatic tissue. He also deprecates too general or free use of strong posterior applications.

Dr. Rosser said that treatment of gonorrhea in former years did not seem to result as frequently in prostatitis as under the local treatment of the present; if it did occur, direct applications after Lallemand's methods proved most efficacious.

Under case-reports, Dr. Whaley exhibited photographs of a monstrosity having four legs and two distinct sets of generative organs, the case being now alive, and having given birth to three children. He gave a full description of the case, and of her life-history and functional powers.

Under miscellaneous business, a resolution was introduced by Dr. McAdory, and its adoption carried, inquiring into the progress which had been made by the State Board of Censors toward the legal changes involved in abolishing the County Examining Boards.

Dr. Talley reported the nominations by the Committee of Health of Mr. Burson as Chief Sanitary Inspector and of Mr. McClellan as Assistant; by vote, the Society confirmed the above nominations.

In the matter of fixing the dues for 1907, it was finally moved and carried that a committee of three be appointed to look over the situation and suggest at the next meeting such dues as would meet the running expenses of the Society.

The Society then adjourned until January 28.

ETOWAH COUNTY MEDICAL SOCIETY.

At a meeting of the Etowah Medical Society, held in Gadsden, Ala., January 2, 1907, the following resolutions were unanimously adopted:

That the following preamble and resolutions are adopted by this Society:

Whereas, Many of the life insurance companies have notified their medical examiners of a reduction of the examiner's minimum fee from five (\$5.00 to three (\$3.00) dollars and

Whereas, We, as physicians realizing the responsibility incident to the proper examination of the individual, believe such reduction to be unjust, therefore, be it

Resolved, That the Etowah County Medical Society, in session assembled, hereby declares such reduction to be unjust.

Resolved, That from this date we pledge ourselves to make no examination for life insurance (old line, fraternal, industrial or otherwise) for less than the minimum fee of five dollars (\$5.00).

Resolved further, That from this date (Jan. 2, 1907) any physician accepting such reduction be adjudged guilty of a breach of professional courtesy, and, if a member, be amenable to the Society for such conduct.

That the above rates shall not apply to medical inspections without analysis of urine, for amounts less than one thousand dollars.

That no member of this Society enter into any contract or agreement with any corporation, society, association, company or individual to examine applicants for insurance for any stated salary or lump sum, thereby evading the spirit and instinct of the foregoing resolution.

That the payment of all fees shall be authorized by the home office of the society or corporation to which such application is made and under no circumstances shall an examiner receive or accept any part of this fee from an agent or any other person or corporation, unless the fee be paid by authority of the home office.

That each member of this Society pledge himself in case a fellow member be removed from the position of examiner because of this action of the medical profession that he will not accept an appointment from such corporation or society as examiner, nor make any examination for same.

That each member of this society bind himself by a pledge to abide by these resolutions.

That the Secretary be instructed to forward a copy of these resolutions to each life insurance company doing business in the State of Alabama, a copy to each county medical society in the state, a copy to the State Medical Journal, and a copy to the Journal of the American Medical Association.

(Signed)

E. T. Camp, M. D., Pres.,

Chas. T. Acker, M. D. Sec.

Pledged—W. H. Acton, M. D.; H. L. Appleton, M. D.; H. V. Baskin, M. D.; D. H. Baker, M. D.; J. M. Brown, M. D.; W. S. Edwards, M. D.; E. T. Camp, M. D.; Chas. T. Acker, M. D.; G. L. Faucett, M. D.; C. L. Guice, M. D.; J. E. Leach, M. D.; J. Gramlin, M. D.; H. L. Ison, M. D.; E. S. Jones, M. D.; J. W. Lawrence, M. D.; F. M. McConnell, M. D.; C. L. Murphree, M. D.; A. W. Ralls, M. D.; M. P. Stephens, M. D.; J. P. Stewart, M. D.; I. C. Ballard, M. D.; T. E. Callan, M. D.; R. A. Burns, M. D.; J. C. Slack, M. D.; J. H. Wood, M. D.; G. W. Wilson, M. D.; J. J. Patterson, M. D.

THE ETOWAH COUNTY SOCIETY.

The Etowah County Medical Society met in Gadsden in regular monthly session at the office of Dr. Ira F. Ballard on Feb. 7th. There was a good attendance of more than twenty members. Dr. C. T. Acker read an interesting paper on "The Ethical Doctor." An agent of the Metropolitan Life Insurance Company was present and petitioned the Society to rescind the action taken by the Society at its last meeting in regard to fees for insurance examinations. The Society declined to rescind its action. The health of the county was reported as unusually good.

THE MORGAN COUNTY SOCIETY.

The Morgan County Medical Society met in Decatur Thursday, Feb. 7th, and elected officers for 1907 as follows: President, Dr. A. R. Wilson, of Hartselle; Vice-president, Dr. B. W. Watson, of New Decatur; Secretary-Treasurer, Dr. J. L. Gunter, of New Decatur; County Health Officer, Dr. S. L. Rountree, of Hartselle.

THE BULLOCK COUNTY MEDICAL SOCIETY.

The Bullock County Medical Society at its last meeting elected the following officers for 1907: President, Dr. J. L. Bowman, of Union Springs; Vice-president, Dr. W. H. Sellers, of Inverness; Secretary, Dr. C. M. Franklin, of Union Springs; Treasurer, Dr. T. J. Dean, of Union Springs.

THE ST. CLAIR COUNTY MEDICAL SOCIETY.

At a meeting held recently of the St. Clair County Medical Society the following officers were elected for the year 1907: President, Dr. J. F. Huey, of Coal City; Vice President, Dr. C. C. Brown, of Odenville; County Health Officer, Dr. J. T. Brown, of Riverside.

Editorial.

W. H. BELL, M. D., Editor.

COLLABORATORS:

T. W. Ayers, M. D., Hwang-hien, via Chefoo, China.
J. T. Searcy, M. D., Tuscaloosa
L. C. Morris, M. D., Birmingham.
J. A. Goggans, M. D., Alexander City.
W. W. Harper, M. D., Selma
Frank I. Smith, M.D., Chattanooga, Tenn.
E. D. Bondurant, M. D., Mobile
B. L. Wyman, M. D., Birmingham
Thomas D. Parke, M. D., Birmingham, Ala.
W. H. Wilder, M. D., Birmingham,
D. F. Talley, M. D., Birmingham.

The Journal will be mailed on or about the 15th of the Month. Subscribers failing to receive it promptly will please notify us at once.

We cannot promise to furnish back numbers

SUBSCRIPTION \$2.00 A YEAR, IN ADVANCE

The editor is not responsible for views expressed by contributors.

All communications should be addressed to
**THE ALABAMA MEDICAL JOURNAL, 109½ N.
20th St , Birmingham, Ala.**

Anesthetics.

The question of anesthesia and anesthetics is engaging the attention of the profession more at the present perhaps than at any time for the past several years. When ether was first used by Long of Georgia in 1842, and chloroform by Simpson in 1847, the profession was very skeptical as to their use. Dr. Weir Mitchel, of the Jefferson Medical College, Philadelphia, after bringing before the class first a cat, then a dog, and lastly a young bull, and causing the death of each by using chloroform, announced that it was too dangerous a drug to use on the



human family, and said that it would be better for a patient to endure the pain incident to an operation and live than to suffer no pain and die. So learned a man as he failed to appreciate the fact that a tool not sharp enough to inflict injury was too dull with which to work.

The fact that new anesthetics are being discovered and tried proves that our older drugs or methods of using them are not ideal. In our efforts to find the ideal anesthetic and the ideal method of using it we should not be too hasty to condemn any new one, and slow to add our experience with it until thoroughly tried and proven to be less dangerous than those already in use. Our standard as to relative danger should be ether. The death rate from ether is only one in 16,000. That of chloroform is one in 5,000.

A good deal is being said as to the remote effect of chloroform on the glandular organs, especially the liver, which is said to undergo a degenerative process more marked than that of the kidneys produced by ether. This should be carefully studied. For if it should be proven to be a fact we would have few indications for the use of chloroform. The strongest argument for the use of chloroform is its rapid effect on the patient—producing sleep quicker, with much less of the pronounced exciting stage, than often results from ether. Miss McGraw, who has administered anesthetics to 15,000 at St. Mary's Hospital, Rochester, Minn., says the struggle from ether can always be avoided if it is administered by the drop method, with the same kind of mask used for administering chloroform. She further claims that if ether is not used in too concentrated a solution the post operative pneumonias will be far less frequent and the kidneys less liable to suffer. It is claimed by some that ether is especially secreted into the stomach during its administration, and if the precaution is taken to wash out this viscus, the patient will seldom have the disagreeable vomiting, which often lasts hours after the anesthetic has been discontinued.

The inhaler of Dr. Jas. T. Gwathmey is attractive, but we have observed that those who use it always start with chloroform and gradually add the ether. We have considered the greatest danger from chloroform to be at the beginning of its administration, and hence would think that if we could risk it during its most dangerous period, it

would be as well to use it during the entire operation; and further, if there are dangerous post-operative effects from both drugs, it would be well to use only one and thus reduce the dangers 50 per cent. This inhaler is, however, a good one, from the fact that with its use we have at our instant command oxygen, which can be at a moment substituted for the anesthetic. We have observed in a few cases in hospitals where the danger of the anesthetic became manifest that the oxygen was in some other room, and before it could be gotten in shape for use, the patient was either dead or had revived.

Dr. Dawbarn, of New York, is advocating the idea of placing a constrictor on one or more of the extremities, damming the blood up in the part to be called into use in case of respiratory or cardiac failure. He claims we need much less of the anesthetic as we do not have so much blood to saturate with it; that the patient will react better and that the fresh blood when permitted to flow back again into the general blood stream will dilute the poisons (if there be poisons) generated in the blood by the anesthetic, and thus prevent those degenerative processes which sometimes follow.

The anesthetics which claim our attention at the present time and call for an expression of opinions by men who have had the opportunity of observing them in numbers of cases are scopolamine and its several combinations and stovain, which is being used by some of the European surgeons in spinal anesthesia.

At first glance and taking the flattering reports of some of the advocates of scopolamine, whose experience with the drug has been limited, one would suppose that we have at last hit upon the ideal anesthetic. But if we will go a little further and note its high mortality as compared with that of the older anesthetics, whose actions are more fully understood, one is apt to carry his scopolamine for a while longer in his hypodermic case and follow the old adage of being "not the first by whom the new is tried, nor the last to lay the old aside."

As to what scopolamine is, has been discussed by our leading pharmacologists, and the opinion seems to be that it is nothing more nor less than hyoscine hydrobromide, and we have known for years this to be an uncertain and dangerous drug. The thirteenth edition of Wood's

Therapeutics gives as a mortality rate from this drug one in every 221 cases. Wood says that "when one considers that in two thousand cases of this form of anesthesia nine deaths have occurred, and compare these figures to one death in sixteen thousand from ether, he will hardly dare weigh the question of convenience against this frightful mortality." He further states that out of these two thousand collected cases the anesthetic was very unsatisfactory in eight hundred and sixty-eight cases. Stovain is claimed by a few of its advocates to be the nearest ideal anesthetic yet used. But others claim a very high death rate from its use. It is injected into the spinal canal between the second and third lumbar vertebrae and will cause complete anesthesia of all parts below this location. It is a respiratory and cardiac depressant, and will often cause continuous vomiting while the operation is in progress, thus prolonging the operation. One case has been reported in which total paralysis of the lower extremities followed its use, and several in which the paralysis persisted for some weeks after its administration. The brain symptoms have been very pronounced in a few cases, and in one case the patient died on the tenth day from some brain trouble which was said to be due to the drug.

It would seem that the mental shock would be very great where the patient was compelled to remain in one position for an hour or more and realize all the time that he was the subject of a dangerous operation.

Keen says "the ideal anesthetic for grave operations is not, as might be supposed, that which leaves the patient perfectly conscious. In most cases he would be terribly scared at the sight of blood, which fright might cause a fatal collapse. The ideal anesthetic is that which will abolish pain and also consciousness and be devoid of danger to life."

Weekly Meetings of the Jefferson County Medical Society.

At its last meeting held on the evening of the 11th, the Jefferson County Medical Society decided by unanimous vote to hold its meetings weekly instead of every two weeks as formerly. A committee was appointed with the President, Dr. B. L. Wyman, as chairman, to ar-

range and have printed a program of the meetings for the year. We consider this a most important move on the part of the society, and believe that it will result in building up and greatly improving the character of its scientific work. We believe that the fear expressed by some that the frequent meetings will cause falling off in attendance will prove to be groundless. The members, knowing that a meeting will be held every Monday evening, will not be so liable to forget about it that an interesting program has been arranged, and that they can spend two hours very profitably at the meeting, they will be eager to attend.

We predict that the attendance will be increased rather than lessened by the more frequent meetings. The interesting programs prepared by the president for the last two meetings and the good attendance at them prove that the prediction will come true.

As stated by Dr. McCormack, the possibilities of this society are enormous, composed as it is of more than two hundred members, and the large majority of these brilliant young men, the peers of any in the South, or indeed of any in the whole country. We look for great results from the year's work of the society, and congratulate the society on its having such a live, accomplished physician as its president, and upon its having adopted weekly meetings and arranged for a year of post-graduate work.

A State Sanatorium for Tuberculosis.

As announced in the Journal last month Mr. S. W. John, of Jefferson, introduced a bill in the lower house of the Alabama legislature to establish a State sanatorium for the study of tuberculosis, and the best methods of preventing its spread and for disseminating the results of such investigations, and for the treatment of persons suffering therefrom. This bill was referred to the Committee of Public Health. A joint meeting of this committee with a similar committee of the senate was held on the evening of the fourth to consider this bill. The State Health Officer and the committee on tuberculosis of the State Medical Association accompanied by a number of other physicians of the State and Mr. Eli P. Smith, of Birmingham, appeared before this joint meet-

ing in the interest of the measure. It was suggested that a substitute for the original bill be recommended providing for the creation of a tuberculosis commission and the establishment of a State sanatorium for the study of tuberculosis, and the best method of preventing its spread and for disseminating the results of such investigations, and for the treatment of persons suffering therefrom, and further, to disseminate information concerning the prevention of other infectious diseases. Some objection was made to this substitute and its champion by Mr. John, and some difference of opinion developed as to the details. However, all expressed themselves as anxious for the establishment of a State sanatorium. A sub-committee of three from the House and two from the Senate were finally appointed to agree upon a measure. If this is done we feel sure that it will be recommended for passage by both houses. It is to be hoped that the legislature will enact a law for the establishment of this sanatorium. We can see the importance of it when we consider that it has been estimated that there are fifteen thousand cases of tuberculosis in Alabama at this time, and that about 14 per cent. of all the deaths that occur in the State are from tuberculosis.

Illinois is about to appropriate \$150,000 for the establishment of a State sanatorium for tuberculosis. Many of the other States have them already established. We would be glad to see the substitute adopted for the original bill and enacted. If this cannot be secured then we hope a compromise measure can be agreed upon appointing the commission and giving them power to establish the sanatorium.

The national association for the study and prevention of tuberculosis.

This association is the outcome of the desire of prominent physicians and laymen throughout the country to unite in a general and systematic campaign, both popular and scientific in character, against tuberculosis. It was established in Philadelphia in 1904. The co-operation of the laity with the medical profession is emphasized both in the membership and the work of the association. It is the American representative of the International Anti-Tuberculosis Association, the headquarters of which are in Berlin, and is similar in its organization.

and purposes to the National Societies which have been formed in Great Britain, Germany, France and other European countries.

The meetings of the association are held annually in May. The Journal of the Outdoor Life, a monthly devoted to the campaign against tuberculosis, is sent free to all members of the association, and regular announcements regarding the work of the association appear in its pages. It is the aim of the association to form State and local associations in all parts of the United States which shall be affiliated with it. It is desired to associate with itself every existing agency of standing in each community in bringing about this organization and every sound movement of education and prevention with regard to tuberculosis is being encouraged. Information as to the cost and method of sanatorium establishment and control is being collected and will be available for those interested in the organization of such institutions. The funds of the association are derived from membership dues and voluntary contributions. The work of the association and the results to be accomplished are only limited by the funds available, and all those who are willing to co-operate are invited to contribute to the funds of the association or to apply for membership.

The officers of the association are: President, Dr. Herman M. Biggs; Honorary Vice-presidents, Theodore Roosevelt, Grover Cleveland and Dr. William Osler; Vice-presidents, Dr. Lawrence F. Flick and Dr. Vincent Y. Bowditch; Treasurer, Dr. George M. Sternberg; Secretary, Dr. Henry Borton Jacobs.

Personal Notes.

Dr. P. G. Dunlap, of Adger, was in the city a few days ago.

Dr. A. B. Phillips, of Dora, Ala., was in the city a few days ago.

Dr. W. H. Blake, of Sheffield, was a recent visitor in Birmingham.

Dr. J. M. Naff, of Shelby county, is visiting friends in Birmingham.

Dr. W. A. Neal, of Vick, Ala., was in Birmingham during the month.

Dr. C. P. Martin, of Woodstock, was in Birmingham during the month.

Dr. A. W. Trigg, of Blocton, was visiting in Birmingham a few days ago.

Dr. H. P. McWhorter, of Collinsville, DeKalb county, was in the city recently.

Dr. W. H. Hutchinson, of Childersburg, the former President of the Talladega County Medical Society, visited Birmingham recently.

Dr. Van B. Potts, of Scottsville, brought a patient to St. Vincents Hospital a few days ago.

We regret to chronicle the death of the wife of our friend, Dr. E. P. Lacy, of Bessemer, which occurred on the 9th. We extend sympathy.

Drs. J. H. and H. I. Williams, of Columbiana, were visitors to Birmingham a few days ago.

Dr. J. F. Alexander, of Blocton, called to see us recently and subscribed for the Journal.

Dr. J. G. Staples, of Birmingham, was called to Columbus, Ky., on January 31st to see his mother, who died before his arrival there. We extend our sympathy to him.

Dr. Edgar Burns, of Sheffield, has been ill at the Hillman Hospital in this city. He is now improving.

Dr. Lewis C. Morris, of Birmingham, entertained a party of friends at a hunting party at Aliceville the last week in January. Among the guests were Dr. Trout, of Baltimore; Dr. Dabney, of Virginia; and Dr. F. A. Lupton, of Birmingham.

Abstracts.

CONCLUSIONS ON TREATMENT OF TUBERCULOSIS OF THE KIDNEY AND BLADDER BY NEPHRECTOMY.

(Leonard Freeman, M. D., Denver, in *Journal A. M. A.*)

1. Tuberculosis of the urinary tract very often begins in the kidney, attacking the bladder secondarily.
2. It is usually at first unilateral.
3. Medical or climatic treatment is unsatisfactory in most cases.
4. The ideal treatment is early nephrectomy, provided there is one sound kidney.
5. Tuberculosis elsewhere, unless far advanced, is not a contraindication to operation.
6. Tuberculosis of the bladder derived from one kidney is positively benefited by nephrectomy and can seldom be cured without it.
7. The demonstration of tubercle bacilli in the urine often fails.
8. The removal of the ureter is not ordinarily indicated. If sinuses result, they nearly always heal in time.

FOR BURNS AND SCALDS.

Gauze soaked in this solution, covered with a dry pad of absorbent cotton, and held in place by a slight bandage. The dressing may re-

RECEIPT.

Acid picric	5 (gr. lxxv),
Spts. rectificat	75 (zjss).
Aq. distillatæ	1000 (O ij).

M. Sig.—Lotion.

main unchanged for several days. All blisters should be pricked when dressing is changed. The dressing should be moistened by the solution before changing.—Hare (*Practical Therapeutics*.)

“RHEUMATISM” AND ITS TREATMENT.

F. J. Walter declares that the various infections will account for every form of so-called “rheumatism,” except muscular, and that is an intoxication. This intoxication accompanies or precedes most artic-

ular, and some nerve infections. The term "rheumatism" is a misnomer. Intelligent treatment consists of prophylaxis, a better understanding between patient and physician, with attention to social conditions, dietetics, exercise, or rest as indicated, elimination by proper baths, fresh air, the right cooperative mental attitude, and in some cases climate. An examination of the urine is important in every case. Heredity has no effect, except as establishing social conditions followed by the family. A sedentary life, and also great muscular fatigue, should be avoided, the latter being a cause of muscle pains in children and working men. Alkaline waters and drugs, although greatly abused, are very important as antacids and antiseptics to the intestines.—*Medical Record*, January 19, 1907.

REPORT OF TWO CASES OF DEMENTIA PARALYTICA, ONE
ASSOCIATED WITH A LARGE HEMORRHAGIC LES-
ION, THE OTHER WITH ATROPHY OF THE
OPTIC TRACT.

Jessie Weston Fisher presents the results of a careful study of these two cases. There are not many records of dementia paralytica associated with gross focal lesions of the brain. Autopsy showed, in the brain of the first patient here described, an area of hemorrhagic degeneration in the prona radialis of the left hemisphere. This lesion began just anterior to the tip of the anterior horn of the left ventricle, extending posteriorly to the dorsal extremity of the caudate nucleus. The anterior limb of the internal capsule was also involved by this lesion. On examination of the brain of the second patient, there was discovered atrophy of both optic nerves and tracts, and the lateral geniculate bodies of each side were found to be about one-half normal size.—*Medical Record*, January 5, 1907.

A MEDICOLEGAL STUDY OF A MORPHIAMANIAC.

T. D. Crothers reviews the history of Dr. J. B. Matthews of Greensboro, North Carolina, who was indicted for the murder of his wife. December, 1905. There was a distinct neurotic taint in this man, and predisposition to mental instability, with feeble controlling power.

He was incompetent to live normally in the ordinary strains and drains of life. His defective heredity was apparent in the sensitive nervous system of early childhood and in the erratic conduct manifest in a suicidal mania at the beginning of manhood. He was an alcoholic and a drug consumer. The writer declares that Matthews should first have been tried by a commission of lunacy, and his mental condition determined. The attempt to make a jury of twelve men understand the actual condition of the mind and motives of a morphiomaniac and determine how far he could reason and judge of the nature and consequence of his acts, is a reversion to the theory and practice of the Middle Ages.—*Medical Record*, January 19, 1907.

PROGNOSIS IN THE CONSUMPTIVE.

J. Mount Bleyver states that the first requisite in forming a prognosis in the early or curable stage of tuberculosis, is to ascertain the leading conditions to which the disease may have been due, with a view to ascertaining the degree of their influence over the constitution and the probability of their removal. The prognosis must be less favorable for those patients whose parents and relatives have exhibited special marks of disease or of defective constitution, whether tuberculosis or otherwise. The prognosis is less favorable for women than for men. The importance of the acquired causes of disease must be estimated by their intensity and continuance, as well as by the natural vigor of the constitution and the effect which they have produced upon it.—*Medical Record*, January 19, 1907.

PUBLIC CONTROL OF DISEASE THROUGH A NATIONAL DEPARTMENT OF HEALTH.

Harold W. Wright says that present methods of practice hinder physicians from pursuing their vocation in the spirit appropriate to it. He suggests that there be established a national bureau of health, having subordinate bureaus in every community of about one thousand inhabitants. There should be at the head of these bureaus physicians who have proved their ability to deal with public health problems and who give their best efforts to the prevention of disease. With proper regulations every case of illness would be reported to the local health

bureau. If matters were so arranged that all physicians would work together for the good of humanity, and not for a fee, the competition and lack of cooperation now existing would be abolished. The medical profession would be invested with dignity and authority. The writer believes that there are no insurmountable obstacles in the way of the system which he proposes.—*Medical Record*, January 19, 1907.

THE DIAGNOSIS AND SURGICAL TREATMENT OF GASTRIC AND DUODENAL ULCER AND THEIR COMPLICATIONS.

A. A. Berg points out the difficulty of making a diagnosis in certain cases of gastric and duodenal ulcer. With reference to the diagnosis of the complications of gastric and duodenal ulcers, one need rarely be doubtful if there is a previous history of such a condition. From his experience the writer believes that operation is not advisable when the patient's general condition is bad, the hemoglobin very low, 19-20 per cent., and the pulse not very rapid. In such a condition, even a slight operative shock, whether or not it is combined with the influence of a general anesthetic, is sufficient to cause the death of the patient. In such cases internal remedies and complete rest, induced by morphine, to check the bleeding, are far preferable. When the patient's general condition is still good, however, immediate operation is strongly indicated.—*Medical Record*, January 19, 1907.

AN UNUSUAL NIDUS FOR GONOCOCCIC INFECTION.

Edgar G. Ballenger had under his care the patient whose history he here reports. The gonorrhea had been contracted a year before the writer saw the patient, but this was supposed to have been entirely cured. After treatment, erosions which had been produced, healed, except in a small pocket on each side just behind the corona and under the edge of the adherent part of the prepuce. Profuse purulent secretion from the small pockets was started by over-exertion. The pocket were found to be the foci of infection. The adhesions which existed were broken up, and the patches cauterized with nitric acid. No further recurrence has been observed for three months.—*Medical Record*, January 26, 1907.

TEN YEARS AS A NASAL PATIENT.

F. K. MacMurrough describes the benefits which he has experienced from a submucous operation which was performed upon his nasal septum. He had for ten years suffered with catarrhal and obstructive symptoms in nose and throat. At this operation considerable cartilage and bone were removed. During the subsequent year he was in better health than he had been for years before, but he did not consider himself cured. In consequence, a second submucous operation was performed, and at this time a high bony ridge, reaching nearly to the roof of the nose, was taken out. Since that time the writer has experienced the desired relief.—*Medical Record*, January 26, 1907.

PROPRIETARY MEDICINES.

Beverley Robinson believes that nearly all proprietary medicines are mysterious, while some are humbugs. Many people are fond of mystery and like to be deceived. The greatest sinners in regard to this evil are the manufacturers and the men of authority in the business world who place their signatures at the bottom of circulars praising these medicines, about which they know nothing. There are certain cases in which if the character of the firms selling these medicines is reliable and if the printed formula seems unobjectionable or desirable for certain case, such drugs may be properly prescribed. The sale of proprietary medicines can be stopped by never sending the patient to any drug store unless it is known reliable; and by never prescribing any particular mixture or pill unless it contains exactly what is called for.—*Medical Record*, January 26, 1907.

STUDY OF A CASE OF YELLOW FEVER.

A. E. Thayer, after giving the results of his careful observations of this case, declares that from this single experience it cannot be claimed, far less proved, that the ameboid bodies seen are causal in the disease known as yellow fever. However, provisionally the name *Amoeba febris flavoe* may be suggested. He believes that before such a claim can be made the following conditions should be fulfilled. The bodies must be found in the organs of other patients with yellow fever,

and early autopsy is probably important. They should be found in the blood of yellow fever patients, in all probability within the first three days of the disease, for transmission by the stegomyia occurs during that period. They must be found under some guise in the tissues of mosquitos known to be infected. More than one observer in different parts of the world should find and identify them. They should be cultivated. All these conditions apply to fresh cases of the disease and to infected mosquitos.—*Medical Record*, January 12, 1907.

PES PLANUS FROM THE VIEWPOINT OF NEUROLOGY.

Charles P. Frischbier, after calling attention to the many disturbances throughout the body which are caused by flatfoot, discusses the treatment for this condition. Most important of all he considers rest in a horizontal position to relieve the feet and legs from all strain; passive and active manipulation of the parts, electricity, baths, and massage aid in eliminating inflammation. Fixation of the feet for a certain period in a position of flexion, inversion, and adduction by means of strapping, bandaging, or plaster casts, is beneficial. Surgical measures may be necessary in extreme cases. When arch supporters are used they should be properly fitted by the orthopedist. Exercises are of great value.—*Medical Record*, January 12, 1907.

PRACTICAL POINTS IN THE OPERATION OF COLOSTOMY.

Charles B. Kelsey is thoroughly convinced of the great benefits of colostomy in many cases. The writer's own method has changed but little. The incision now made is half the length of the former one, and is "gridironed," as in appendicitis. Muscles are separated as far as possible, and fibers cut as little as possible. In the temporary operation the sutures are passed through the edges of the abdominal incision, the parietal peritoneum, and the wall of the gut. In the permanent operation care should be taken not to include the parietal peritoneum in the suture. In making an opening into the sigmoid it should be made as high up as possible to avoid prolapse, and in the cecum it should be made as far as possible from the valve. The operation for an artificial anus may as well be completed at the time as to wait several days before the gut is opened.—*Medical Record*, January 12, 1907.

THE INTESTINAL BACTERIA; HOW THEY ACQUIRE TOXICITY, AND HOW TO DETERMINE THIS EXPERIMENTALLY FOR CLINICAL PURPOSES.

E. Palier declares that we have to deal with only two microorganisms, which are constantly found in the feces and which may become pathogenic. These are the coli bacilli and the cocci. From his experiments he concludes that a fresh medium enhances the virulence of the coli bacilli, and that in agar older cultures are on the whole more virulent than fresh ones. It appears that under a meat diet the coli bacilli of the intestines are most likely to become virulent. This is most likely to occur when some of the meat happens to pass in an indigested state through the stomach and duodenum. As to the cocci, the writer has found them usually in the form of diplococci or in short chains. It is generally admitted that the coli bacilli are in most cases responsible for appendicitis, yet in some cases cocci alone are found in this affection. The presence in the feces of virulent cocci denotes a localized point of suppuration somewhere in connection with the intestinal canal. It is the virulence of bacteria that is of importance.—*Medical Record* January 5, 1907.

THROAT DISEASE CAUSED BY THE MISUSE OF THE VOICE.

N. J. Pooek van Paggen points out the symptoms common to clergymen's sore throat. Patients suffering from this disorder do not use their breathing, articulation, or vocal muscles normally. Harmonious cooperation among these three sets of muscles is lacking. Breathing is usually clavicular in these cases. The breath is the chief element in the production of voice and speech, thus the patient should learn in the first place the correct way to breathe, and the best method of using the breath in phonation. The combined diaphragmatic and thoracic breathing is recognized as the best way of breathing. No speaker who misuses his voice should take singing lessons to improve his speaking. The patient, before undertaking any exercises, must first go through a judicious medical treatment united with rest of the vocal organs.—*Medical Record*, January 5, 1907.

PHYSIOLOGICAL ACTION OF MASSAGE.

Gustav Norstrom declares that the affections in which massage has yielded the best results and in which it has been most used and recommended are those in which normal relations of the tissues or their elements are altered. In order to obtain a clear idea of the physiological action of massage, one must become familiar with the laws of nutrition of the tissues, of which absorption is one of the main factors. Friction accelerates the venous circulation and diminishes existing stagnation. The practitioner of massage must modify his methods to suit each case. The beneficial action of massage on fatigue may be explained by the assumption that absorption is increased by this treatment. The writer concludes his paper with a reference to the beneficial action of massage in cases of neuralgia.—*Medical Record*. January 26, 1907.

OUR CONFIDENTIAL FRIENDS.

We would not banish opium. Far from it. There are times when it becomes our refuge. But we would restrict it to its proper sphere. In the acute stage of most inflammations, and in the closing painful phases of some few chronic disorders, opium in galenic or alkaloidal derivatives, is our grandest remedy,—our confidential friend. It is here also that the compound coal-tar products step in to claim their share in the domain of therapy. Among the latter, perhaps, none has met with so grateful a reception as "Antikamnia and Codeine Tablets," and justly so. Given a frontal, temporal, vertical or occipital neuralgia, they will almost invariably arrest the head-pain. In the terrific fronto-parietal neuralgia of glaucoma, or in rheumatic or post-operative iritis, they are of signal service, contributing much to the comfort of the patient. Their range of application is wide. They are of positive value in certain forms of dysmenorrhoea; they have served well in the pleuritic pains of advancing pneumonia and in the arthralgias of acute rheumatism. They have been found to allay the lightning, lancinating pains of locomotor ataxia, but nowhere may they be employed with such confidence as in the neuralgias limited to the area of distribution of the fifth nerve. Here their action is almost specific, surpassing even the effect of aconite over this nerve.

Book Notices.

PRACTICAL DIETETICS.

With Reference to Diet in Disease by Alida Frances Pattee, Graduate Boston Normal School of Household Arts; late Instructor in Dietetics, Bellevue Training School for Nurses; special Lecturer at Bellevue, Mount Sinai, Hahneman, and the Flower Hospital Training Schools for Nurses, New York City; St. Vincent de Paul Hospital, Brockville, Ontario, Canada. Fourth Edition. (Cloth \$1.00.) A. F. Pattee, Publisher, Mount Vernon, New York. 52 W. 39th Stt., New York.

This is a work on the preparation of proper food for the sick and convalescent, giving the method of preparing liquid, semi-liquid and solid food. It contains the diet list and what to avoid in various diseases; also the proper diet for infants and children as advised by leading physicians and hospitals of New York and Boston.

INTERNATIONAL CLINICS.

A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and Other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession Throughout the World. Edited by A. O. J. Kelly, A. M., M. D., Philadelphia. Volume IV. Sixteenth Series. 1906. Philadelphia and London. J. B. Lippincott Company. (Cloth \$2.00.)

This volume is gotten up in attractive style, and contains five articles on Treatment; seven on Medicine; five on Surgery; three on Obstetrics and Gynecology; one on Laryngology; and one on Otology.

Besides containing the Index to Volume IV., it contains a general index to the Sixteenth Series.

We commend this volume to our readers as well up to the standard and worth a place in every physician's library.

Sixth Annual Report of the New York State Hospital for the care of Crippled and Deformed Children for the year ending Sep. 30, 1906. Hospital located at West Haverstraw, N. Y. Paper.

The Growing Years. By Wm. S. Bainbridge, A. M., M. D., New York. Abstracts of lectures. Also reprints by same author on Malignant and Non-Malignant Growths.

Scarlet fever—its prevention, restriction and suppression, published by the Illinois State Board of Health, 1906. Paper.

Diphtheria—its prevention, restriction, and suppression. Issued by the Illinois State Board of Health, 1906. Paper.

Typhoid fever—its prevention, restriction and suppression. Issued by the Illinois State Board of Health, 1907. Paper.

LIQUOZONE BARRED FROM REGISTRATION IN THE U. S.
PATENT OFFICE AS UNLAWFULLY INTERFERING
WITH THE TRADE MARK GLYCOZONE.

Notice is hereby given that a proceeding in the United States Patent Office, which is entitled THE DREVET MANUFACTURING COMPANY vs. THE LIQUOZONE COMPANY, the name of "Liquozone" was barred from registration in the U. S. Patent Office as unlawfully interfering with the trade-mark "Glycozone."

The individual or corporation in any way infringing upon the trade-mark "Glycozone" which is a lawful trade-mark (Glycozone being a thoroughly scientific and legitimate preparation for the treatment of germicidal diseases, etc.) and duly registered under the new trade-mark law, or selling of any merchandise labeled with any mark or name infringing upon the trade-mark "Glycozone" or in any manner resembling the same, will be prosecuted for damages to the full extent of the law.

Miscellaneous Notes.

As the colder weather approaches certain diseases and remedies will be more on the mind of the profession. Among the remedies will be cod liver oil. Hagee's cordial of the extract of cod liver oil compound, is not only one of the most popular cod liver oil preparations on the market, but one of the very best, if not, indeed, the best itself. All the nutritive properties of the oil are retained and the disgusting and nauseating elements are eliminated. Combined with hypophosphites of lime and soda it offers to the profession a reconstructive of great value. The writer has for some years prescribed it freely, and with great satisfaction.—*Massachusetts Medical Journal*.

Timeliness of interest, aside from any other condition, lends especial importance to the announcement of the early publication of *Foods and Their Adulterations*, by Harvey W. Wiley, M. D., to be immediately followed by a companion volume, *Beverages and their Adulterations*. Dr. Wiley is Chief Chemist to the United States Department of Agriculture, at Washington, and his wide researches in the interests of purity in food commodities give anything he might write on the subject an authoritativeness that is unquestioned. The fact that the new National Food and Drugs Law becomes effective after January 1st, and that public interest in it is now at white heat, will no doubt result in quite a demand for both volumes. The books will be generously illustrated from original photographs and drawings.

From time to time new coal-tar products are introduced, and very often these disappear within a few months after they have been brought to the notice of the profession, simply because they do not prove a special value or else have been found to exhibit dangerous properties. Not so with Phenalgin, which is a product put upon the market by the Et-na Chemical Company, New York (London agent: Mr. E. J. Reid, Basinghall Avenue, E. C.). Phenalgin is ammonio-phenylacetamide. Like products of a somewhat similar composition it possesses three distinct

properties. It is an analgesic. In this respect it bids fair to rival completely phenacetin, and is of special service in cases of neuralgia and headaches of various kinds. In dysmenorrhœa it is likewise of great service, small repeated doses frequently acting as a charm in relieving this distressing complaint. Then again it is useful in reducing temperature. Here it finds a useful application in the hectic fever of tuberculosis, small doses being given with marked benefit in such cases. In fact Phenalgin is one of the best all-round antipyretic agents known, and is more reliable than any other product of similar origin. Lastly, it acts as an hypnotic, partly by relieving pain and partly also by allaying nervous restlessness, so often met with in diseases of various kinds.

The product is chemically pure, and is put up in pink-top capsules and in tablets. These capsules are made of the best gelatine and are absolutely free from all impurities, retaining their strength, it is said, for an indefinite period. The tablets contain 2 1-2 grains of phenalgin, and the capsules five grains each of the powder. The dose ranges from 2 1-2 to 10 grains, repeated in half-an-hour if necessary. In cases of dysmenorrhœa ten grains should be taken every half-hour until relieved. At least these are the directions given by the manufacturers, but probably much smaller doses will be found sufficient. From personal trial of Phenalgin we can strongly recommend it as a valuable substitute for phenacetin. Its great advantage is that it is not known to the public, whereas phenacetin is, and apart from this it is a distinctly pure product from which good results may always be confidently expected. Samples and further particulars can be had for the asking at any time from the London agent, who will also answer any inquiries relating to this new remedy. We strongly advise our readers to give it a trial in their practice.—Medical Times, London, England.

"BEAUTY AS A FACTOR IN DISEASE."

The New York Pharmaceutical Co., Bedford Springs, Bedford, Mass., has issued a most interesting and instructive booklet under the above Caption which gives in detail the various methods adopted by the fe-

male sex of the many savages and semi-civilized tribes to increase their attractiveness in the eyes of the male portion of their tribe or race.

In some instances this so called improvement or attractiveness is carried to that degree of regional development that locomotion is impossible. A copy of the booklet will be sent upon application.

INCREASE OF BLOOD PRESSURE THROUGH COCA.

S. A. W., Guthrie, Oklahoma.—What application has the action of Coca in raising the blood pressure to the treatment of circulatory troubles?

The blood pressure is chiefly raised by the increase of force, or rate, of the heart beat, or by a decrease of the width of the small blood vessels or from both causes, which may be commonly present in a condition of disease. Coca acts directly on the muscle of the heart to strengthen it, and also on the muscles of the arteriole walls, narrowing them for the blood stream. In addition to these actions on the muscular system, it acts on the nervous mechanism of the circulation centrally, directly and reflexly through the sensory nerves.

In anaemia, where the blood pressure is low and the ventricular contractions rapid because they have little resistance to overcome, there is a short, quick apex beat. Increase the blood pressure by Coca—employing The Mariani or Vin Mariani as may be indicated—and this condition will materially change, as shown by improvement in the pulse and the heart sounds. Meantime the general nutrition is brought up to a point which will clinch the progress that has been made and your patient will be greatly benefited.

Another advantage of Coca in circulatory troubles has been pointed out by Dr. Alexander Haig, of London, who has explained that waste products in the blood stream interfere with a proper metabolism, and this contamination may be quickly driven out with Coca, thus making the world look brighter: "When the blood stream is free the pulse tension is reduced, the rate is quickened, and the increased flow alters the mental condition as if by magic."—*The Coca Leaf*. November, 1905.

THE ANEMIAS OF CHILDHOOD.

The anemias of early life are usually sequels of the acute diseases common to this period. The exanthemata are especially liable to be followed by a depreciation of blood quality, and a protracted convalescence often depends on this one condition alone. Moreover, the frequency with which physical stigmata or infirmities actually date from an attack of measles, scarlet fever, diphtheria or any of the other similar diseases of childhood, can often be properly laid at the door of insufficient or improper care during the very important stage of convalescence from these diseases.

It should be recognized that the hermatogenic function while exceedingly active in childhood, is yet very susceptible to all inhibitory influences, among which the toxins generated in the course of the acute diseases are most common. When a storm infection of measles, scarlet fever or any of these similar ailments is passed, there must follow a period of reconstruction. If the damage has been slight as a result of a light storm or an unusually strong structure, the reconstructive process places little demand on the resources of the individual. But if the storm has been unusually severe and the structure ill-prepared to meet its fury, the rebuilding process is certain to be long and laborious. Deficiency in the quality of the blood is one of the greatest handicaps at this time, and the clinician should recognize this as one of the most important indications for therapeutic assistance.

The action of Pepto-Mangan (Gude) is always very marked in these cases, and it is interesting to note how rapidly children respond to its upbuilding influence. A marked increase in hemoglobin at once follows its use and the red cells multiply rapidly. With improvement in the blood constituents there is a corresponding increase in the whole bodily tone, and it only takes a few days to carry the average patient safely away from the dangers of a trying period.

Pepto-Mangan (Gude) is therefore a very valuable tonic in childhood, and unlike so many of the ordinary hematinics it can be given with impunity to the youngest infant. It has marked alterative properties, and in strumous or marasmic conditions it is especially valuable. It is absorbed rapidly, and is never rejected by even the weakest stomach.

In early life its administration is best effected by giving it in milk, and the dose should range from ten drops to two teaspoonfuls, depending, of course, on the age of the patient.

ANAEMIA FROM DEPRAVED CONDITIONS OF GENERAL NUTRITION.

By Richard Ray, M. D., Ph. D.

Kansas City, Mo.

The nutrition of the body, by which we understand the maintenance of its parts in a fit state to perform their functions, depends upon two main factors—the supply of suitable food, and the assimilation of the same. When either of these factors are disturbed, disorders of nutrition result.

If the food be inadequate or unsuitable, other things being normal, general atrophy will be the consequence, and the same results will evidently follow if the organs of assimilation are at fault. The result of a deficiency of food, or of faulty assimilation is a general state of malnutrition, in which any hereditary tendencies that may exist, have a more favorable field for development.

There is a general diminution in the weight of the body, and an imperfect performance of its functions, as is indicated by muscular weakness, mental lassitude, etc., and as the quality and quantity of the blood supply depends largely upon digestion and assimilation of proper and nourishing foods, we can readily understand why Anaemia is so closely associated with almost all cases of disorders of nutrition, for one of the chief causes of anaemia is, that the supply of blood to the body is insufficient, and except in haemorrhage, this insufficiency is most often the result of derangements of alimentation.

The majority of cases of anaemia that are regarded and treated as such, fall into the class to which the name of IDIOPATHIC has been applied. In such cases the anaemia condition is due, not to any disease, so-called, but to disturbances of nutrition generally; that is, of a healthy relation between the demands of the system and the supply of nutrient material, and the proper assimilation of the same.

This condition occurs most frequently in children, the youth, and the young woman at the period of bodily growth, and development and early activity of the sexual functions, and when, as is so frequently the

case, the air, light, food, occupation, and moral relations of the individual are more or less unhealthy.

Where the aetiology of anaemia is not complex, and where it is classed as idiopathic, as in the growing child, the youth, the girl at puberty, or in cases of depraved conditions of general nutrition, which are not symptomatic of some more grave condition, such as Bright's disease, Phthisis, etc., the rational treatment suggests itself, viz: To bring the alimentary tract and organs of sanguification into a healthy state, and then proceed to build up the general system, and increase the blood supply.

Dyspepsia and constipation require immediate attention. The food must be carefully selected so that it shall not only supply the albuminous elements that are especially deficient in the blood, but be retained and absorbed, and must therefore be nourishing and digestible.

The patient should also be placed upon nutritive, reconstructive tonic treatment, and in cases of this kind I find nothing that gives me better results than Cod Liver Oil, more especially when in combination with the hypophosphites of lime and soda. While these dietetic and medicinal measures are being carried out, it is impossible to insist too strongly upon bodily and mental hygiene.

Above all, time is an essential element in the cure, and rest is scarcely less so. The following case histories may prove of some interest, as they show the results attained by me in the treatment of a number of cases along the lines mentioned above.

Case 1. Male. Broker. Age 42. Scrofulous diathesis. Stated that for a number of years he had been troubled with impaired digestion, poor appetite with occasional attacks of vomiting and vertigo.

Upon examination I found an irritable heart, with soft systolic murmurs. Extreme pallor, with gums, tongue, ears and conjunctiva pale.

Had been taking some preparation of iron, but had derived little if any benefit from it. I gave a brisk purgative dose of calomel, to be followed next morning by a dose of effervescent phosphate of sodium, and outlined an easily assimilated, blood producing diet. Instructed him to be in the fresh air and sunlight as much as possible, but not to exercise enough to induce fatigue.

I prescribed cord. ext. 01. morrhuae, comp. (Hagee), maximum dose four times daily, for its nutritive, reconstructive effect. This treatment without any other medication whatever, except an occasional laxative, was continued about three months, and the result was a complete recovery. All the distressing symptoms disappeared, and the patient regained his normal health, strength and energy, with a gain in weight of 18 pounds during the three months of treatment.

Case 2. Miss A. H. 16 years old. Sewing machine operator in a "sweat shop," where the air was foul, no sunlight, and all the surroundings unsanitary. Had been employed at the same place for two years constantly. Was very pale and anaemic. No appetite, and bowels always constipated. Had never menstruated, and had the appearance of an overgrown, undeveloped girl of 14.

I induced her to give up her position, and secured her a place as child's nurse, where she could have plenty of fresh air, sunlight, and what was of equal importance, an abundance of wholesome, nourishing food.

I started the treatment with a strong purgative to clear out the alimentary tract, followed by cord. ext. 01. morrhuae. comp. (Hagee) four times daily, with instructions regarding constipation and indigestion, should she be troubled with either.

She continued taking the Cordial of Cod Liver Oil for about four months, during which time she began to menstruate, her body developed and rounded out, her color became good, and she was soon as fine a specimen of healthy, well developed young womanhood as one would wish to see.

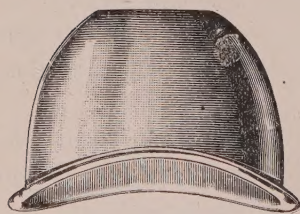
Case 3. Male. Aged 39. Farmer. This case cannot be classed as an idiopathic case, but I wish to mention it here, as it is one that I think is of special interest. The patient had been troubled for some time with a pain in the "pit of the stomach," which was always increased by taking food. his pain, of a burning, gnawing character was often felt in the back also. He was very much emaciated, and stated that he had suffered from two attacks of vomiting of blood, of a bright red color. A typical case of gastric ulcer. I prescribed bis. sub. nit. grs. xxx three

times daily, and ordered a strictly liquid diet of milk, beef tea, etc., with complete rest.

Also prescribed cord. ext. ol. morrhuae. comp. (Hagee) four times daily. It was about six months before I allowed the patient to take any solid food, depending upon the Cod Liver Oil preparation principally for nutrition and reconstruction, and during the six months of treatment the patient gained 22 lbs. in weight, eventually made a good recovery, and is today enjoying excellent health, without having had recourse to any other medication than the Bismuth and Hagee's Cordial of the Extract of Cod Liver Oil.

A STERILE EYE BATH.

An eye bath fashioned from a single piece of aluminum has been introduced by the Kress & Owen Company. That this little device will



EYE BATH

be well received by the medical profession is not to be questioned when one considers the many points of advantage this metal cup has over the old style glass contrivance. It is cleanly, unbreakable and can be sterilized instantly by dropping into boiling water. The surgical bag in the future will hardly be complete without one of these cups, which will give happy results in many an emergency. It will be found invaluable for treating Ophthalmia, Conjunctivitis, eye strain, ulceration and all inflammatory conditions affecting the eye.

DIRECTIONS.—Drop into the eye bath ten to thirty drops of Glyco-Thymoline, fill with warm water; holding the head forward, place the filled eye bath over the eye, then open and close the eye frequently in the Glyco-Thymoline solution.

No pain or discomfort follows the use of Glyco-Thymoline. It is soothing, non irritating, and reduces inflammation rapidly.